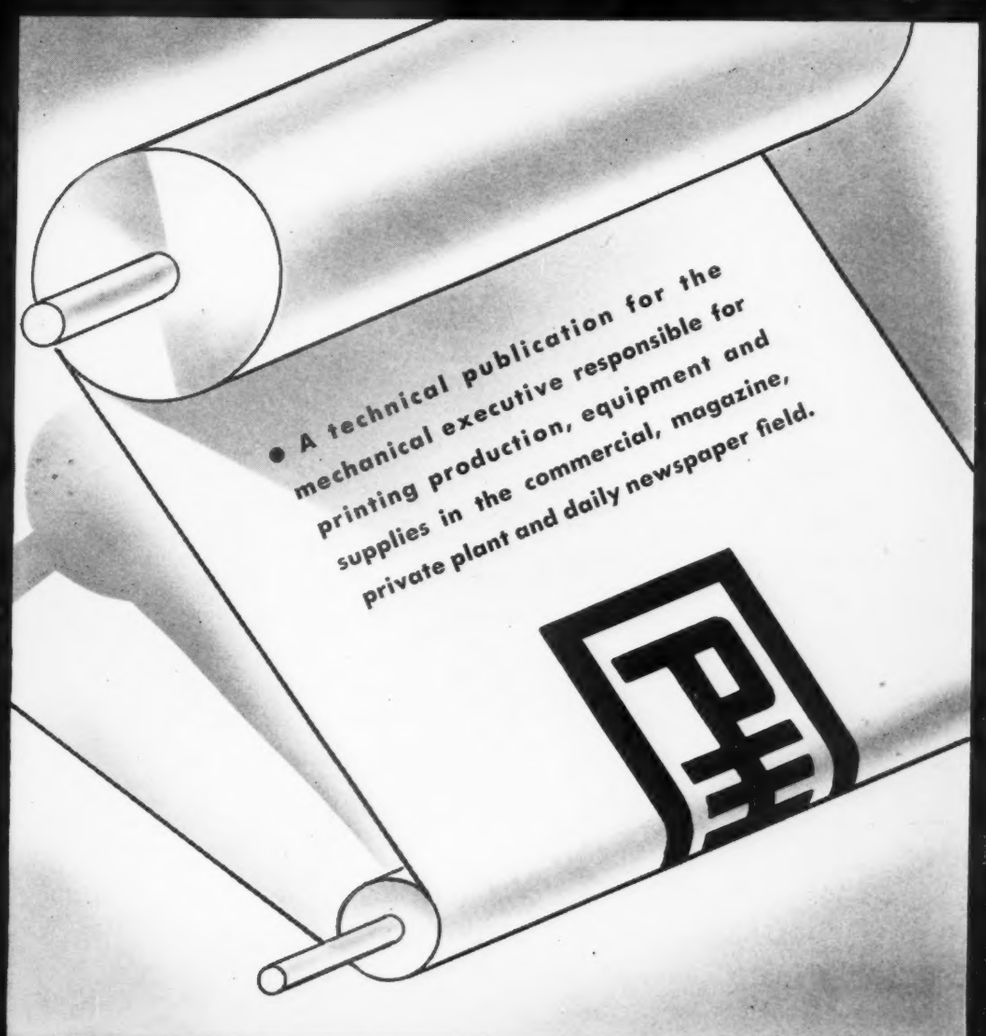
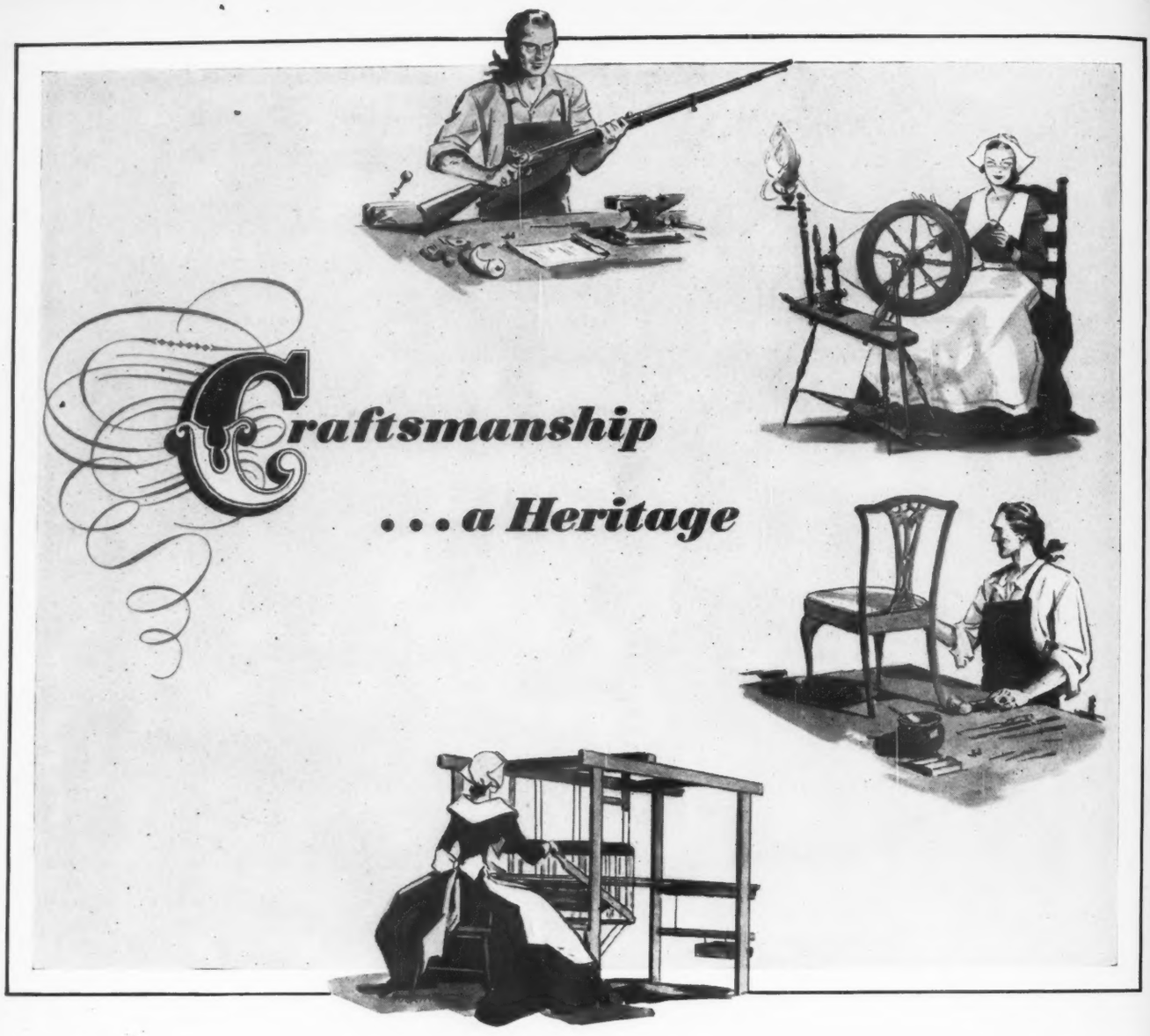
PRINTING EQUIPMENT


• A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.



In the early days of homespun and handicraft the human element predominated in most trades, particularly in printing. The result was that the keenest application of human faculties, the combined force of the spirit and the flesh, became a heritage.

No other craft today enjoys this heritage so much as printing. Invention has simplified and accelerated every printing operation, but the fact remains that skilled man power is still the spark which ignites all printing achievement. Mechanics will never displace the human heart nor dethrone the artistry of the mind.

A successful printing job unites thought, talent, and labor into a concrete and useful whole. The styling of type, the beauty of presswork, knowledge of color, ink, and paper—all these are aimed at the perfection of successive steps—vitalized by a craftsmanship which adds excellence to excellence until the bindery adds the crowning touch of completeness. On one hand, the huge American budget for printing has been a challenge; on the other, the superb facilities of the printing craft are meeting these needs. The gap has been bridged by the foresight of the printer, plus his devotion to a craftsmanship handed down through generations.

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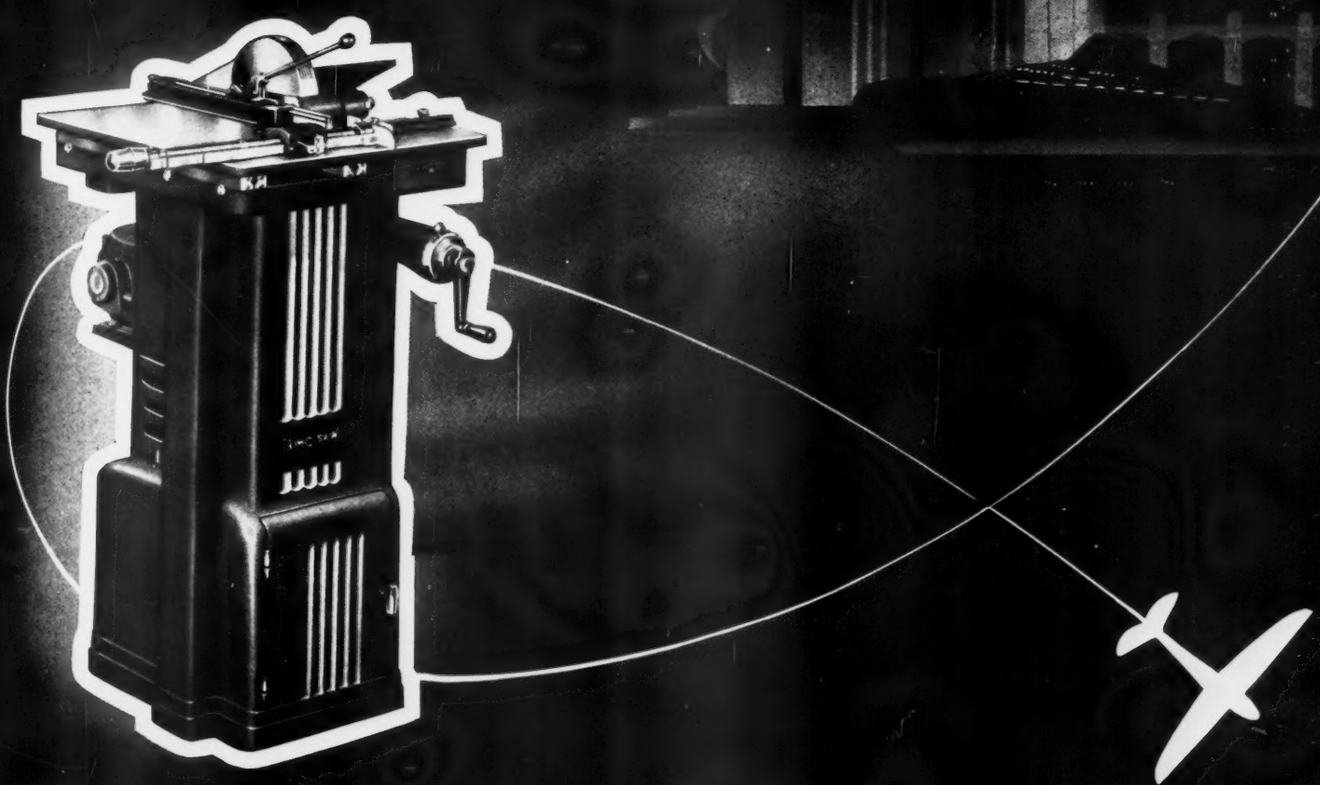
The Hammond

Glider



3 GLIDERS

A MODEL FOR EVERY PLANT

FOR years composing room saws have been uncertain, unsafe, inaccurate, hard operating — far below the standard of other printing machinery. The Glider was designed and built to eliminate all this — in short, designed for unbelievable speed, ease, accuracy and safety. The advanced Glider features were immediately recognized by newspaper, composition and commercial plants — so that today the Glider is virtually the unanimous choice of all. With 3 Gliders, there is a size and type for every plant, purse and purpose. These Gliders are the result of Hammond's 60 years building specialized sawing machinery, including 6000 Hammond TrimOsaws.

BALL-BEARING TABLE: It glides — the Glider table is the easiest moving saw table ever built — it's smooth, and it actually glides on large steel balls operating in finely machined ways — the only high grade, accurate construction ever offered for composing room saws.

MICROMETER POINT-MEASURE GAUGE: Designed for quicker setting and permanent accuracy with longer sliding surfaces, natural hand grip, black and white scale, larger point dial, precision micrometer screw and wear take-ups.

SINGLE-ACTION CLAMP: Work is clamped with single downward motion. Clamp opens to 42 picas — holds as short as 8 points — removes from table with quarter turn of eccentric locking lever. Positive, unyielding, quick acting, non-fanning.

SAW ARBOR: Advanced adjustable, oil-sealed, permanently interlocked, double, oversize ball-bearing construction. Saw blades changed in 1/3 usual time by lock-bolt through center of saw arbor. Saw heads driven by three steel studs, not by threaded shaft.

SAW BLADES AND TRIMMER TOOLS: Two larger diameter (7") DuraBlades made from special alloy steel provide longer saw blade service. Three 1½" DuraSteel Trimmer Tools are securely locked by hardened steel wedges and set screws — not by set screws alone. Trimmer Sharpening Device maintains scientific cutting angles. Trimmer Setting Device automatically sets trimmers to correct cutting length in exact relation to saw blade.

V-BELT DRIVE AND MOTOR: Automatic V-Belt tension regulation provides smoother and more powerful drive. No idler pulleys, no slippage, no noisy belts. Fully enclosed belt guard. Accurately machined, balanced, and keyed "V" pulleys — plus first quality endless "V" belts provide the modern machine tool drive.

SAW RAISING AND LOWERING MECHANISM: By points and picas — two picas per one turn of handle. Operated by micrometer screw and designed for permanent rigidity and accuracy. Only the Glider incorporates this advanced raising and lowering modern machine tool construction.

SAFETY: Designed for speed, ease and accuracy, the Glider TrimOsaw has extra safety features. In addition to the usual guarding of the saw blade, the Glider provides fully enclosed guarding of belts, pulleys, grinding wheel, motor and a thumb guard is provided on the gauge. Table is equipped with rubber bumpers.

SPECIFICATIONS

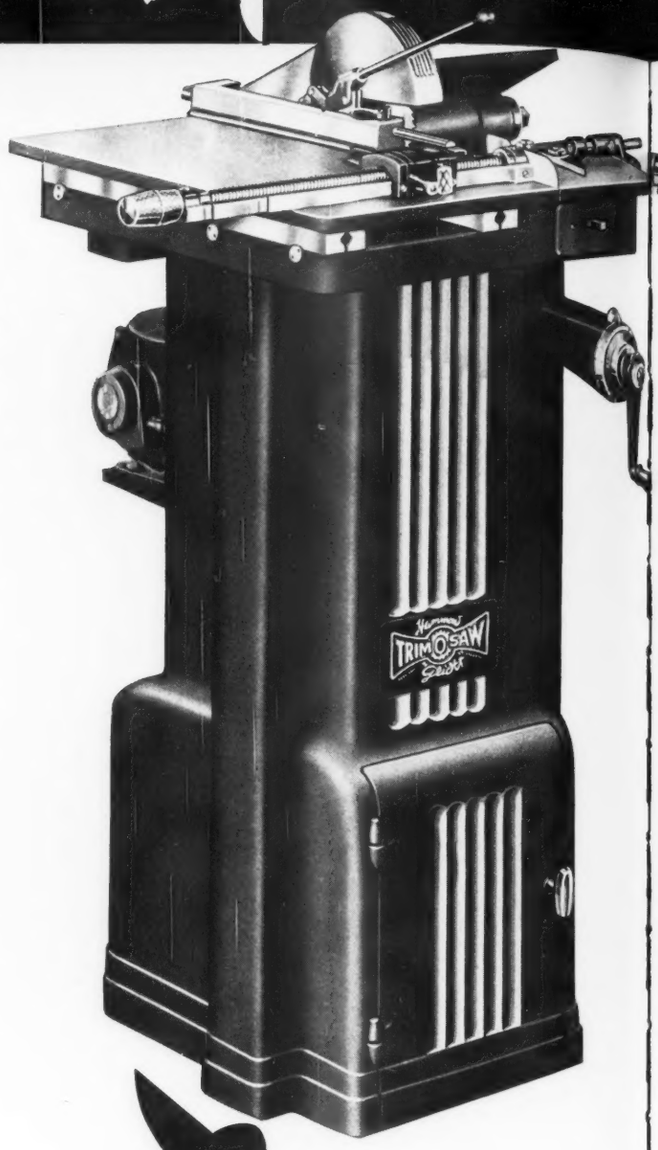
	G-3	G-2 & G-2F	G-22 & G-22F
Gliding table dimensions	12½" x 22½"	10" x 21"	10" x 21"
Over-all table dimensions	21" x 22½"	18½" x 21"	18½" x 21"
Floor space required	30" x 67"	30" x 59"	27" x 59"
Diameter of saw blades	7"	7"	7"
Number of driving belts	2	1	1
Motor size	½ HP	⅓ HP	⅓ HP
Clamp opening capacity	42 ems	42 ems	42 ems
Smallest measure clamp will hold	8 pts.	8 pts.	8 pts.
Micrometer gauge capacity	78 ems	78 ems	62 ems
Height of floor models	38"	38"	38"
Height of bench models	.....	10"	10"
Capacity in front of saw	18½"	14"	14"

(Full page capacity in front of saw obtained on G-3 by undercutting and on G-2 and G-2F with special attachment.)

SHIPPING WEIGHTS:

Bench Model	.....	400 lbs.	370 lbs.
With Strip Material Cabinet	.....	540 lbs.	510 lbs.
With Steel Cabinet	.....	520 lbs.	490 lbs.
Floor Model	750 lbs.	720 lbs.	690 lbs.

SPECIAL EQUIPMENT: Model D Any-Angle Sawing and Mitering Gauge for base material and rule, 135-Pica Micrometer Gauge in place of standard gauge at time of order, 178-Pica Extension Point-Measure Gauge for G-3 and G-2 (162-Picas for G-22), 78-Pica Micrometer Gauge in place of 62-Pica Gauge on G-22 at time of order, See-Thru Guard (can be furnished in place of Flexible Lighting Fixture at time of order on G-2 and G-3 but not on G-22), Chip Buggy (only special with G-22 and G-2 Steel Cabinet), Saw Grinding and Truing Device, Hammond All-Purpose Blades.



lider TrimOsaw

THE MODEL G-3 HAMMOND GLIDER TRIMOSAW is the "original" Glider. It introduced in composing room saws, such revolutionary features and improvements that today it is the virtually unanimous choice of America's best plants because of its greater speed, ease of operation and accuracy. While all three Hammond Gliders have the same advanced features, the Model G-3 is the larger, all-purpose model. For example it has 25% greater table area, ½ HP Motor, and double V-belt drive.

STANDARD EQUIPMENT: 78-Pica Micrometer Gauge, Micrometer Gauge Finger, Positive Single-Action Workholder Clamp, Two 7" dia. DuraBlades, Two Saw Heads, Three DuraSteel Trimmer Tools, Aluminum Saw Guard, Trimmer Setting Gauge, Trimmer Sharpening Device, Flexible Lighting Fixture, Chip Buggy, Flat Grinding Wheel, Two Heavy-Duty V-Belts, Fully Enclosed Belt Guard, ½ HP Motor (any electrical specifications desired), Miter Vise, Swivel Batter and Line-Up Gauge, Tool Board, Oil Stone, Oil Can, Screw Driver, Brush and Complete Set of Wrenches.

G-2F Glider TrimOsaw

G-2 is Bench Model

THE MODEL G-2F HAMMOND GLIDER TRIMOSAW is a fine all-purpose composing room saw. This Model is identical with Model G-22 in size but it has a 78-Pica Gauge plus a point-system raising and lowering saw arbor, making it suitable not only for the sawing and trimming of slugs, rule and border, but also for the squaring, sawing and mortising of type-high and shell plates. Available as Bench Model G-2.

STANDARD EQUIPMENT: 78-Pica Micrometer Gauge, Micrometer Gauge Finger, Positive Single-Action Workholder Clamp, Two 7" dia. DuraBlades, Two Saw Heads, 3 DuraSteel Trimmer Tools, Aluminum Saw Guard, Trimmer Setting Gauge, Trimmer Sharpening Device, Flexible Lighting Fixture, Chip Buggy, (Chip Drawer furnished with Bench Model) Flat Grinding Wheel, Heavy-Duty V-Belt, Fully Enclosed Belt Guard, 1/3 HP Motor (any electrical specifications desired), Miter Vise, Swivel Batter and Line-Up Gauge, Oil Stone, Oil Can, Screw Driver, Brush and Complete Set of Wrenches.

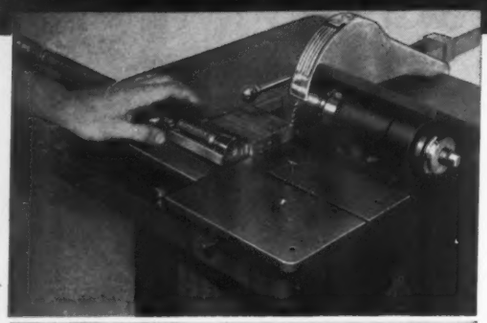
G-22F Glider TrimOsaw

with Strip Material Cabinet

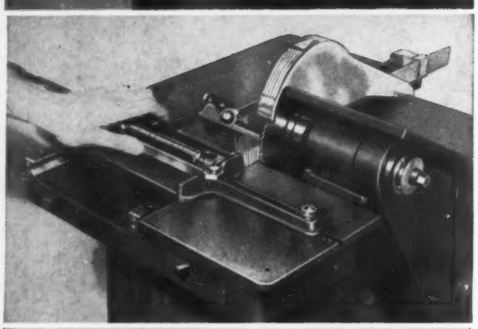
G-22F is Floor Model

THE MODEL G-22 HAMMOND GLIDER TRIMOSAW is the ideal machine for the production plant requiring more than one composing room saw. It is equipped with a stationary saw arbor, and is built for sawing and trimming of slugs, rule and border. This Model is identical to the Model G-2 in size except it has a 62-Pica Gauge and Stationary Saw Arbor. Available as Floor Model G-22F.

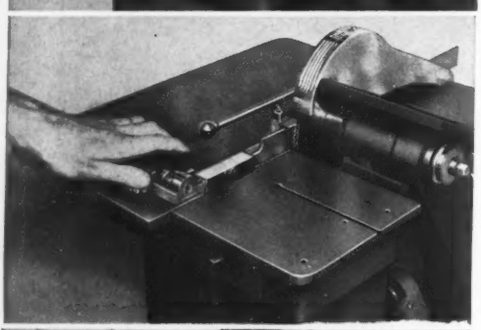
STANDARD EQUIPMENT: 62-Pica Micrometer Gauge, Micrometer Gauge Finger, Positive Single-Action Workholder Clamp, Two 7" dia. DuraBlades, Two Saw Heads, 3 DuraSteel Trimmer Tools, Aluminum Saw Guard, Trimmer Setting Gauge, Trimmer Sharpening Device, Flexible Lighting Fixture, Chip Drawer, (Chip Buggy furnished with Floor Model) Flat Grinding Wheel, Grinding Wheel Guard, Heavy-Duty V-Belt, Fully Enclosed Belt Guard, 1/3 HP Motor (any electrical specifications desired), Miter Vise, Swivel Batter and Line-up Gauge, Oil Stone, Oil Can, Screw Driver, Brush and Complete Set of Wrenches.



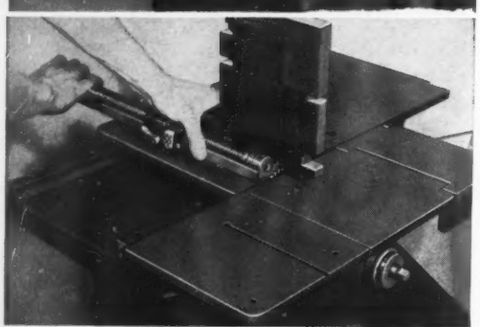
Sawing and Trimming Slugs on the Ball-Bearing Table.



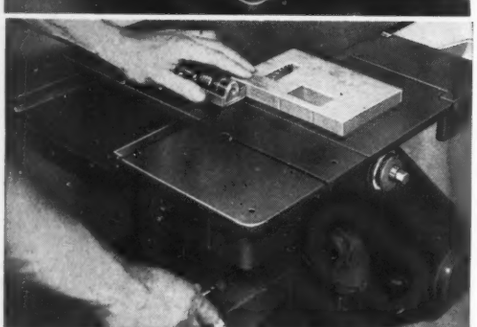
Mitering Sixteen 6-point Rule (or equivalent) in One Operation.



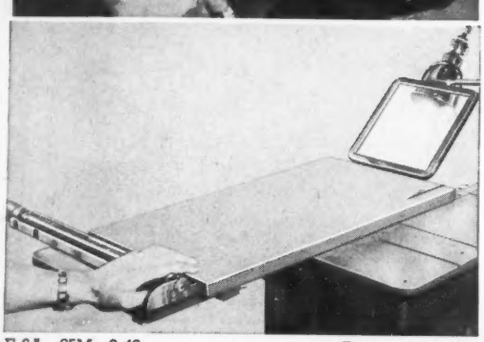
Sawing Down the Quadded Ends of Slugs.



Outside Mortising — Both Width and Depth to Point Measure.

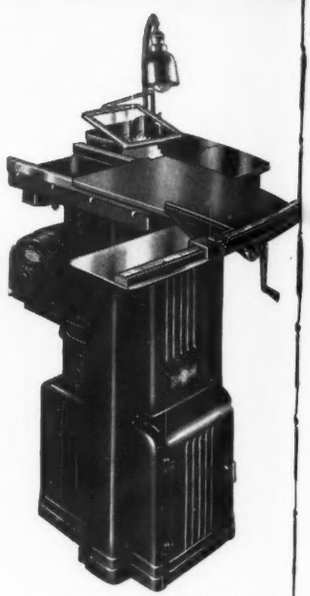


Inside Mortising — Square and Accurate to Point Measure.



Sawing Large, Type-High Stereo without Effort on Gliding Table.

These and many more operations done on the Glider with effortless ease and micrometer accuracy.



The Model G-20 Glider is the finest ever made for sawing type-high stereos. The ease and smoothness is breath-taking. It is equipped with 135-Pica Plain or Micrometer Gauge, Gauge Finger, See-Thru Guard, Lighting Fixture, 1 HP Motor, Double V-Belt Drive, Fully Enclosed Belt Guard, Raising and Lowering Ball-Bearing Saw Arbor, Two 7" dia. Special Stereotype Blades with Heads, Three Trimmer Tools and Flat Grinding Wheel. The G-20 is made for better stereotyping department production with easier operation.

For ads set at angles. Without guesswork — saw base material and border to exact angle and correct length. Without danger—clamp everything from the smallest to the largest pieces in the powerful overhead eccentric clamp.

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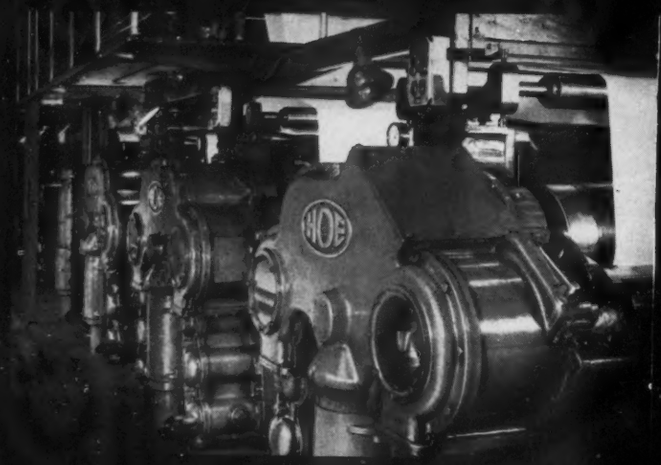
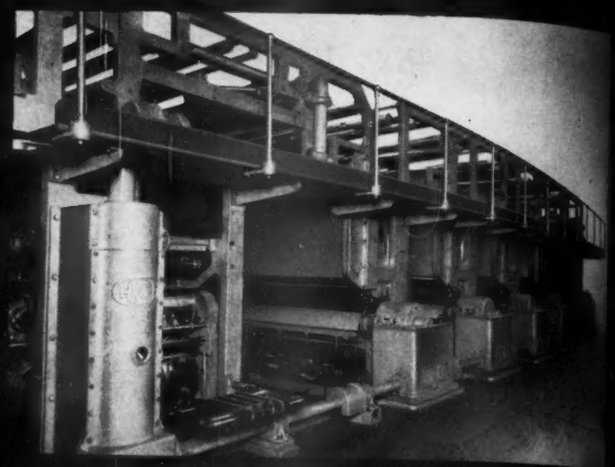
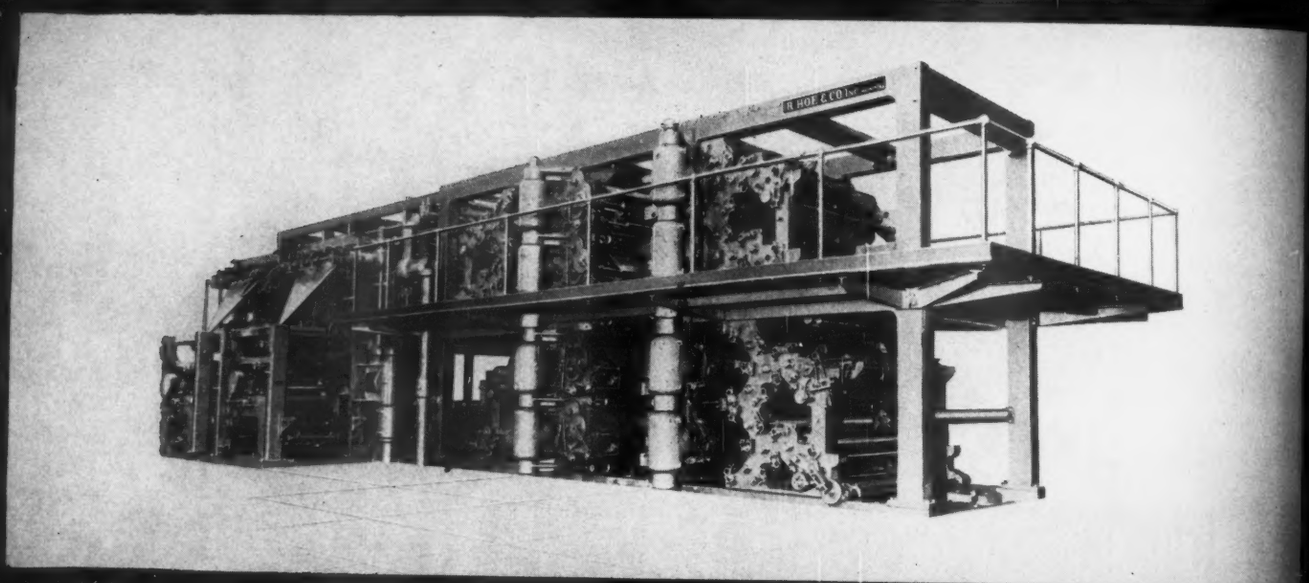
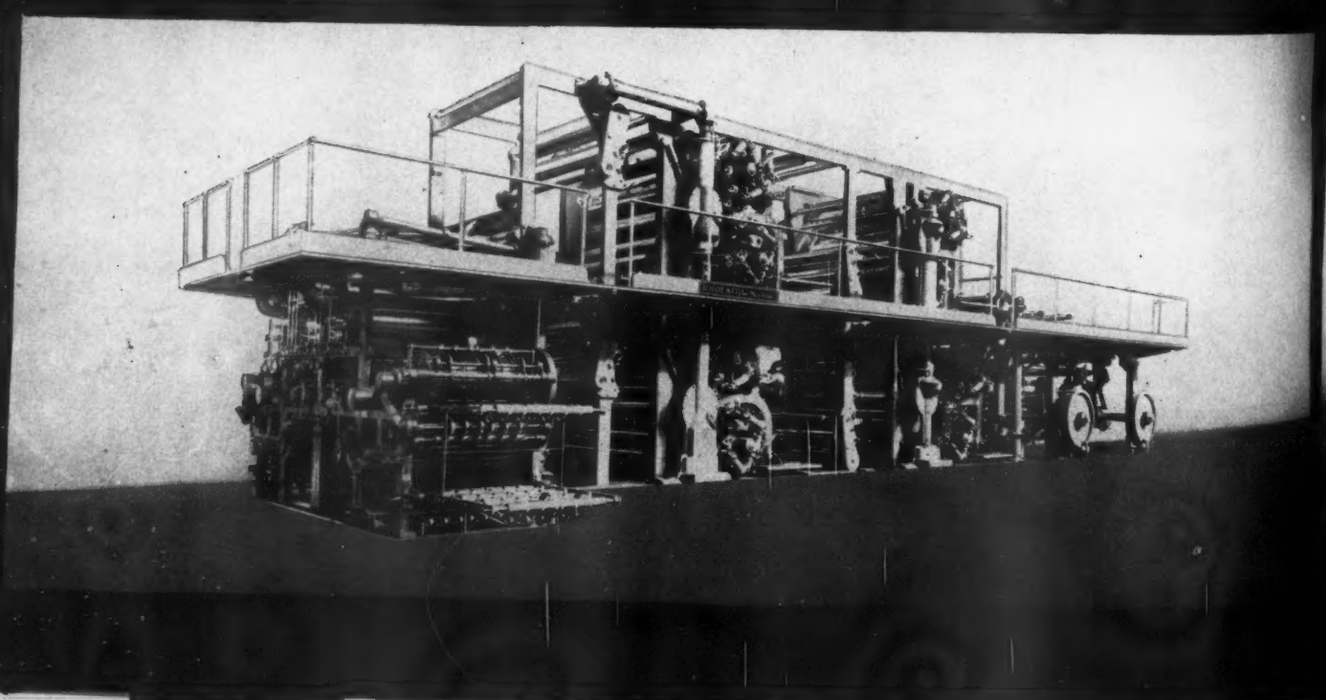
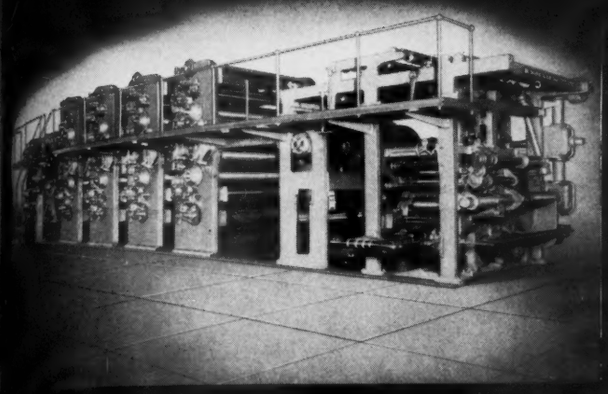


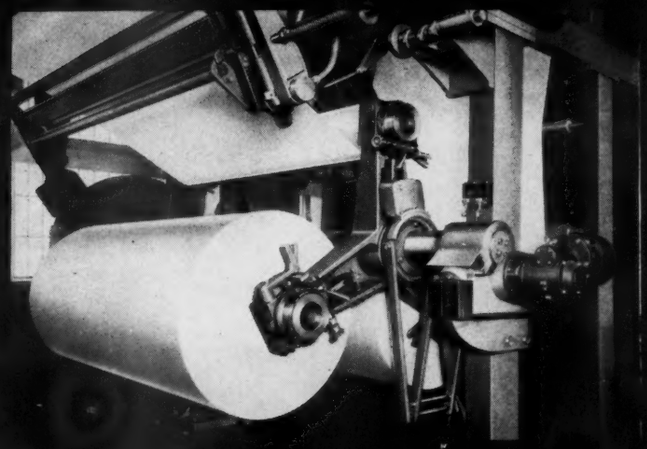


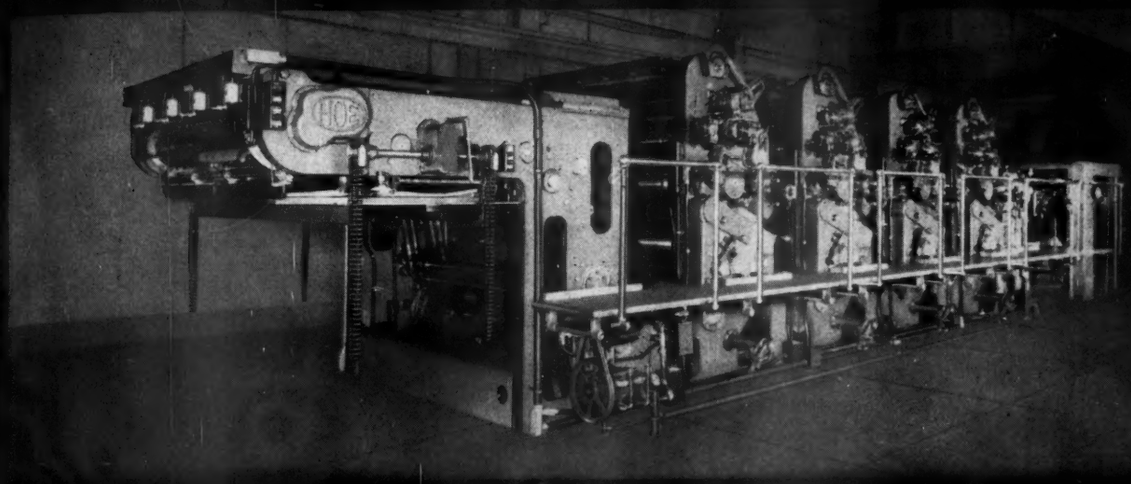


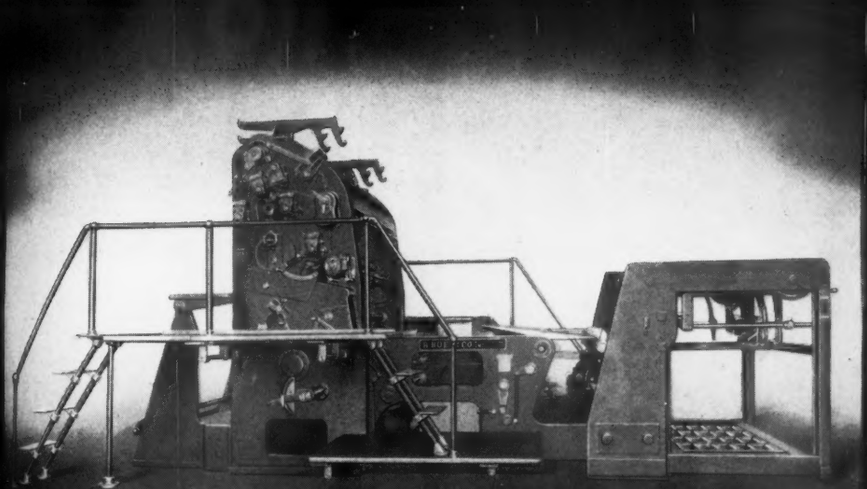


F-6A—25M—8-40 Printed in USA





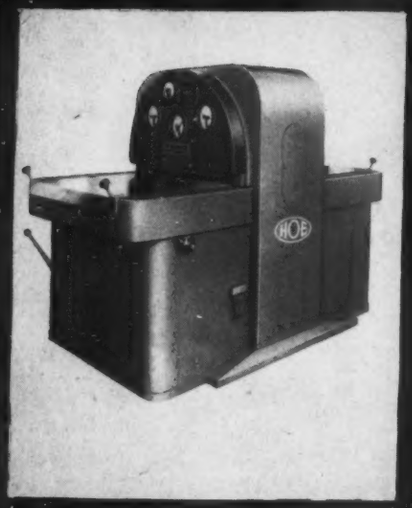




Some of the machines that comprise the complete

HOE LINE of PRECISION-BUILT PLATE-MAKING MACHINERY

are illustrated on the reverse page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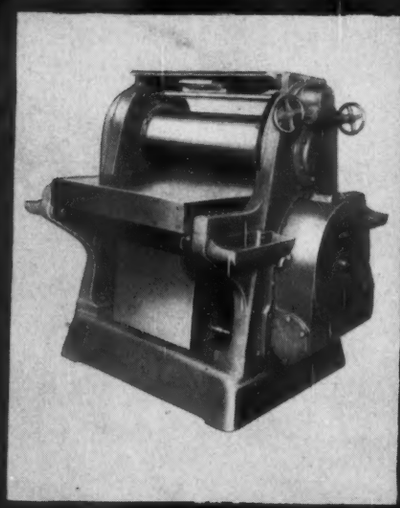

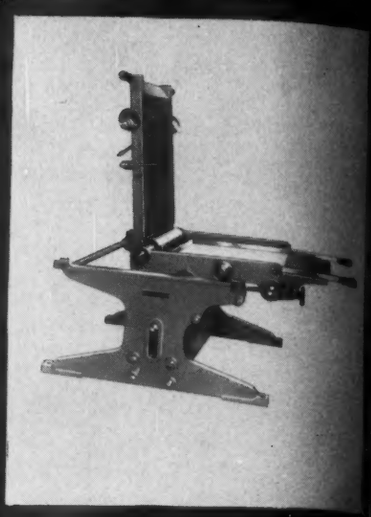

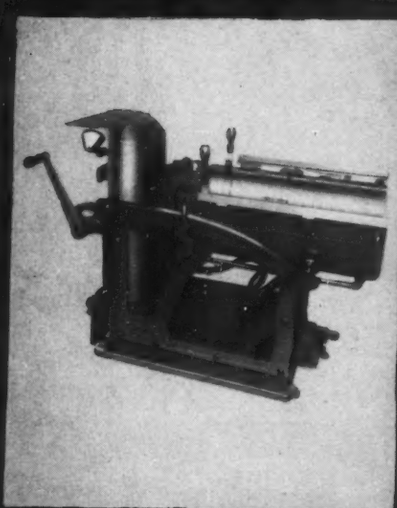

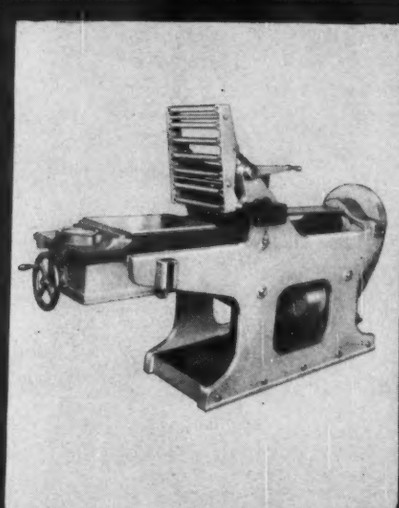

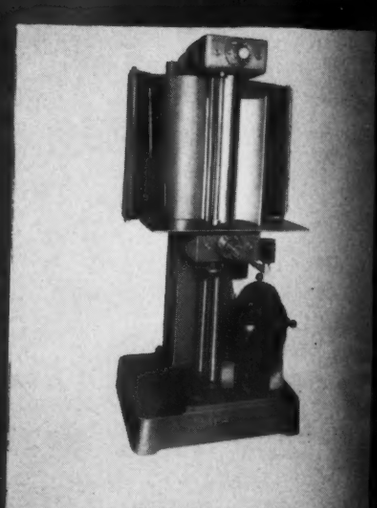

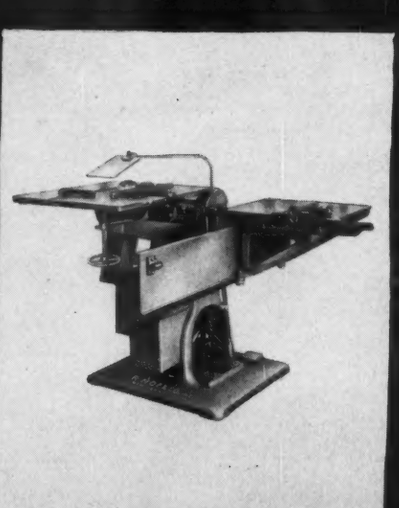

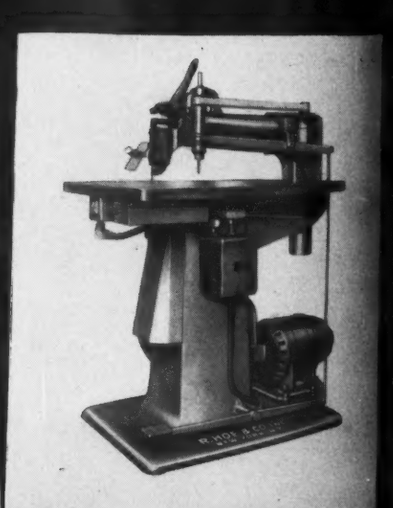

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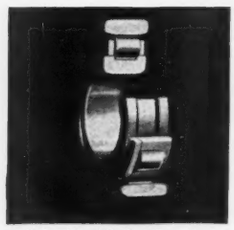
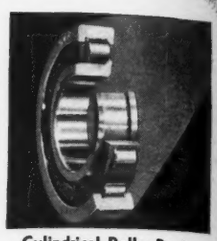
Single Row, Deep Groove Ball Bearing

Self-Aligning Ball Bearing with Steel Cage

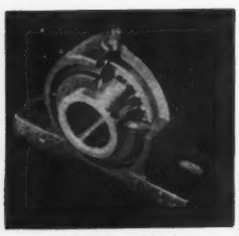


Cylindrical Roller Bearing, Type N

Self-Aligning Spherical Roller Bearing with Steel Cage



Cylindrical Roller Bearing, Type NJ



SG Pillow Block

SA Pillow Block Felt Seal

SAF Pillow Block Triple Seal

SDAF Pillow Block

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Your Authorized SKF Distributor is a trained *trouble-shooter*. Let him solve your bearing problems. Send for Data Sheet giving dimensions and load ratings . . . and bulletins of bearing applications in specialized industries.

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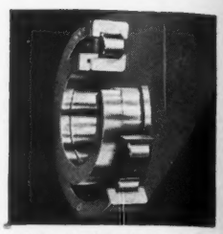
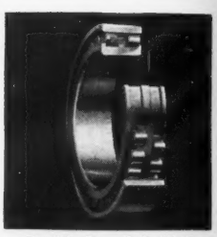


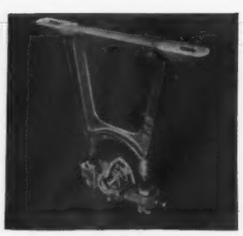
Cylindrical Roller Bearing, Type NH



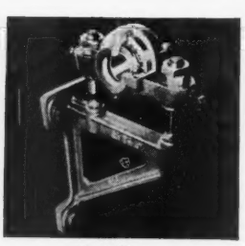
Double-Row Cylindrical Roller Bearing— Type NN-3000K

Ball Bearing Take-up Box

FG Flanged Housing

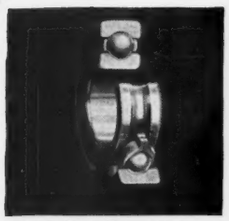


Drop Hanger



Post Hanger

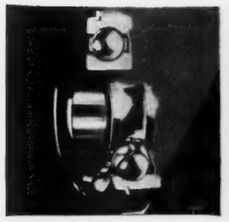
Cartridge Housing



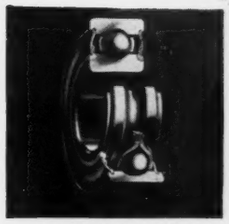
Single Row, Deep Groove Ball Bearing— Pressed Bronze Cage

Single Row, Deep Groove Ball Bearing with Plate

Single Row, Deep Groove Ball Bearing with Snap Ring



Single Row, Deep Groove Ball Bearing with Snap Ring and Plate



Double Seal Red Seal Ball Bearing

Self-Aligning Spherical Roller Bearing with Adapter Sleeve

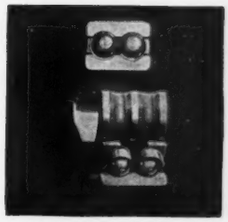
EVERY LOAD *Every Speed!*

Here, some of the varied products of SKF pass in review before your eyes. Here, *one* manufacturer presents bearings to answer problems of *Speed* that vary perhaps from 10 r.p.m. to 100,000 r.p.m. . . . bearings to meet requirements of *Load* that vary from the ability to sustain a feather's weight up to tremendous crushing stresses of thousands of tons.

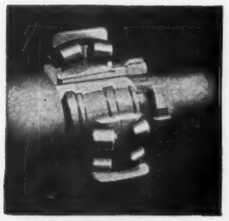
Here, you see housings that enable these bearings to do their best work under the most adverse conditions . . . housings produced with special machines, tools, jigs and gauges which are essential to the manufacturer of precision housings for precision bearings.

That both bearings and housings are made under one roof has a special significance. It assures you of a *complete* bearing unit made to order for *replacement* as well as for *new* machines.

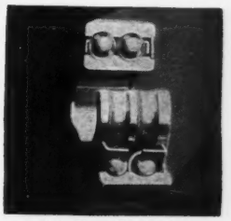
SKF



Double Row, Deep Groove Ball Bearing



Self-Aligning Spherical Roller Bearing, SK Type, Adapter Sleeve



Double Row, Deep Groove Ball Bearing with Plate

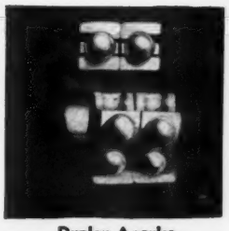
Self-Aligning Ball Bearing, Wide Type, Steel Cage

Ball, Thrust Bearing, One-Direction, Flat Seat

Self-Aligning Ball Bearing with Adapter Sleeve

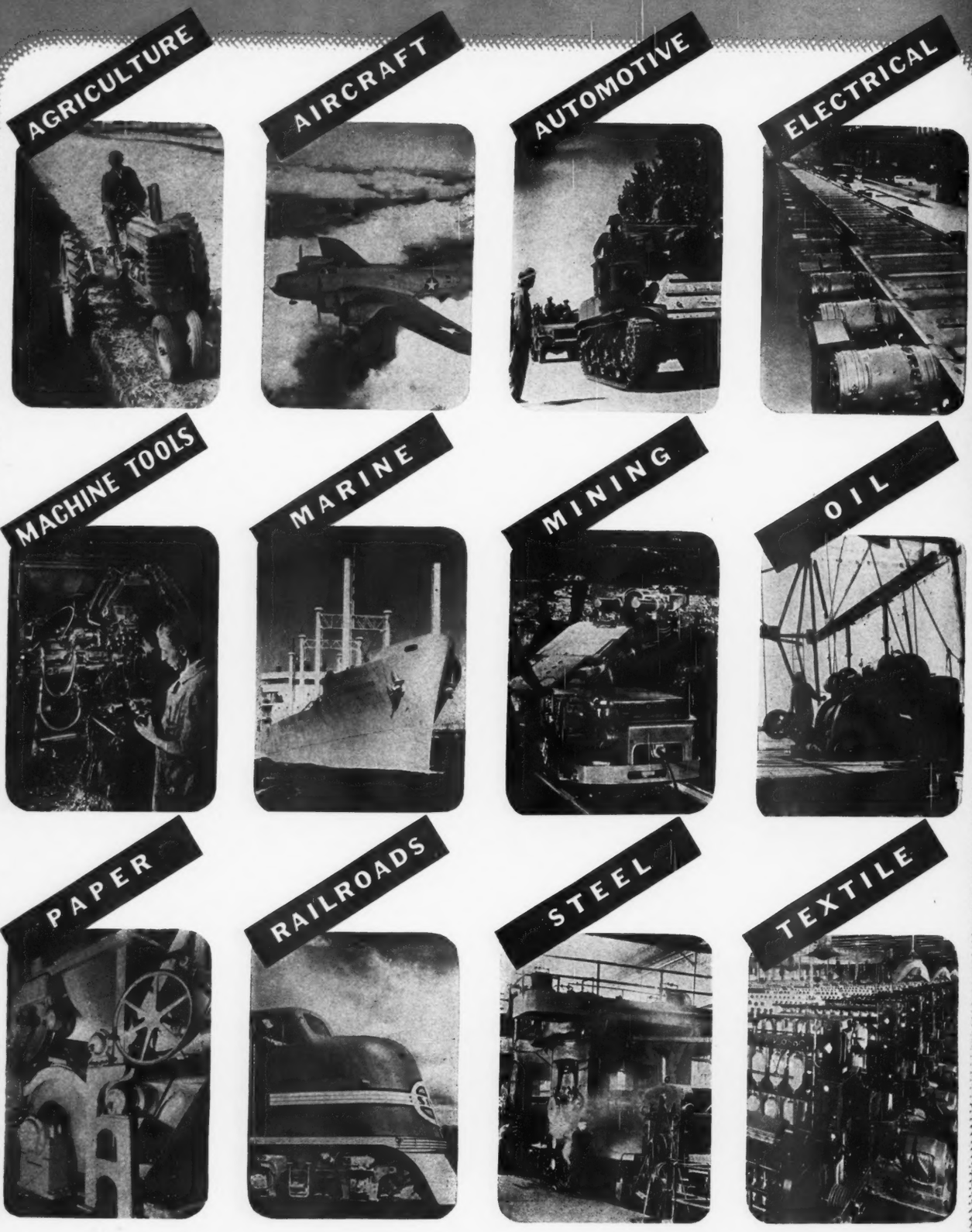
Single Row Angular Contact Ball Bearing

Single Row Angular Contact Ball Bearing



Duplex Angular Contact Ball Bearing

Cylindrical Roller Bearing, Type NU



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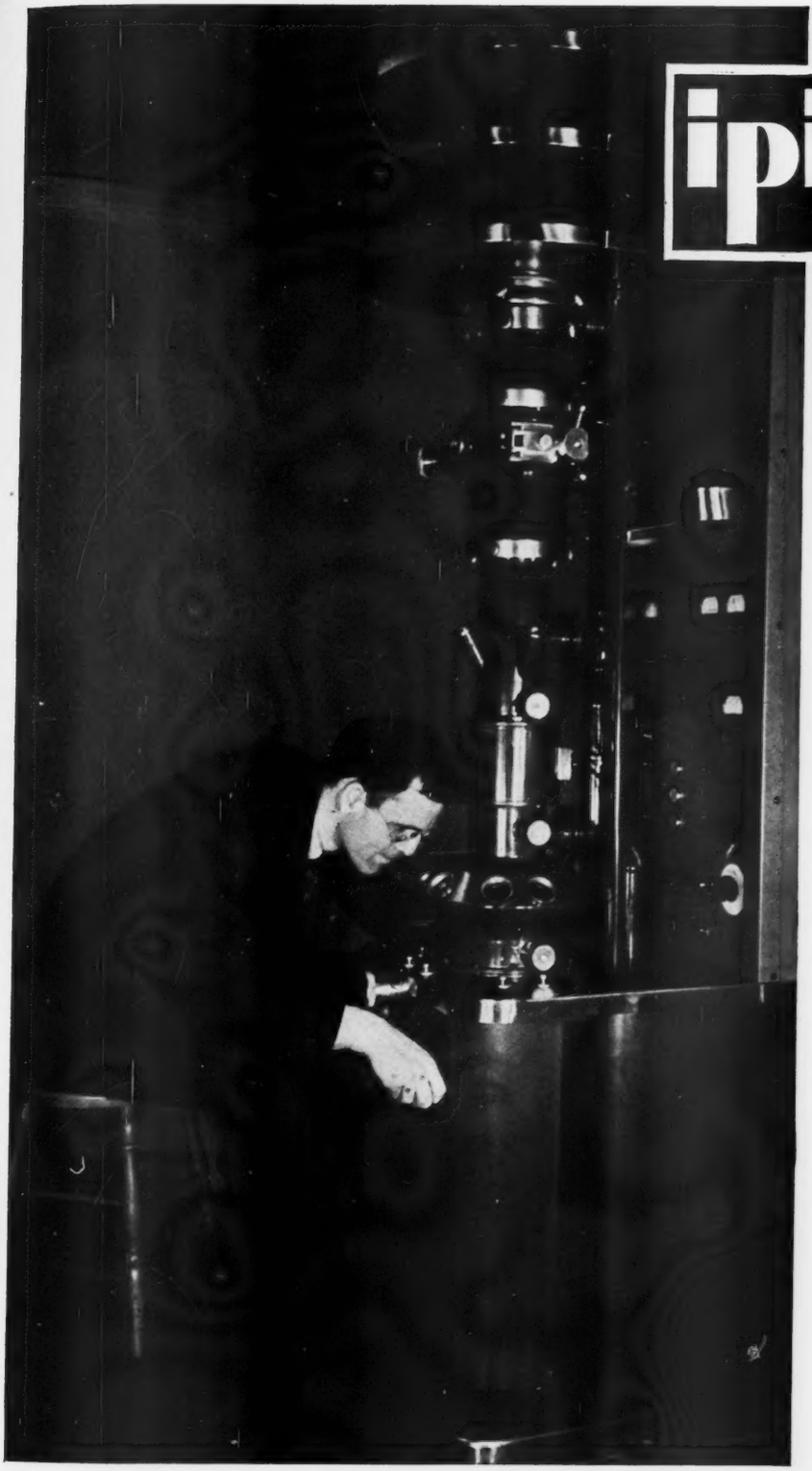

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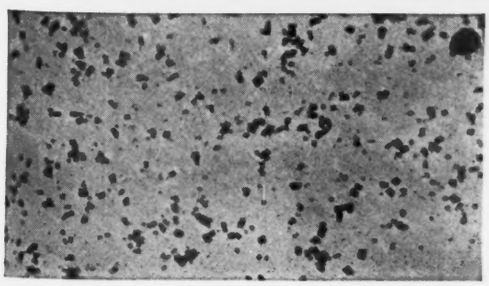
The IPI "Reporter" is an ink chemist. To help you solve your printing problems he is continually seeking new facts about printing pigments. Here you see him using IPI's electron microscope—a "super microscope" with a resolving power 50 times greater than the very best light microscopes! The electron microscope enables IPI to determine, with a degree of accuracy never before possible, the true nature of various pigments and how they react when mixed with other materials!

Printers in many fields have long recognized International Printing Ink's technical skill and experience in the manufacture of printing inks. This leadership is the direct result of continuous research and the use of such precision equipment as the electron microscope, IC Viscometer and the G. E. Recording Spectrophotometer.

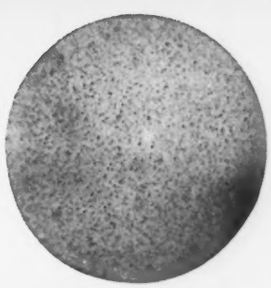
Years of experience has given IPI the "know-how"... *and IPI is the only ink manufacturer to combine that "know-how" with the latest and best development and control equipment!* For the "latest news" about printing inks . . . Keep in Touch with IPI!

The IPI News Ink Color Guide

IPI has been a pioneer in the development of news web colors and, for many years, has been serving leading newspapers with news blacks. Send today for "Newspaper Web Press Colors"—a news ink color guide which covers all phases of newspaper printing with colored ink. Write to International Printing Ink Division of Interchemical Corporation, Empire State Building, New York 1, N. Y.



Iron Blue—13,000 Diameters with Electron Microscope.



1250 Diameters with Light Microscope.

ipi

NEWSPAPER WEB PRESS COLORS

The Recording Photoelectric Spectrophotometer can analyze in about two minutes any one of several million different colors by charting its reflectance properties on a sheet of graph paper. It provides a precise method for matching and analyzing colors. It substitutes for the fallibility of the human eye, the unvarying accuracy of a photocell system. This Interchemical machine is the first recording spectrophotometer to be installed for commercial use.

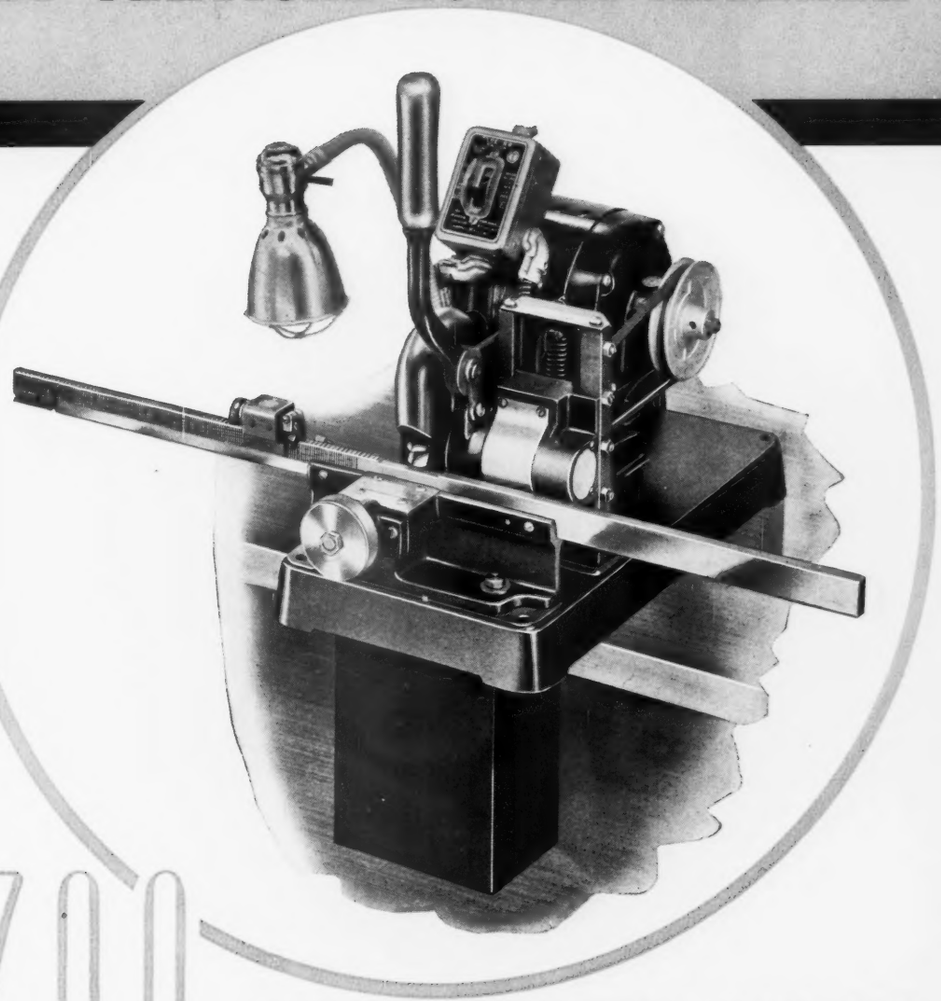
This News Press in the IPI Research Laboratories can *really* roll. It is a high-speed unit capable of reproducing papers at a speed comparable to that of metropolitan newspapers. Of course, this press is not used commercially; its purpose is to provide a plant test for newspaper inks developed in the IPI Laboratories. Testing inks under actual pressroom conditions is an integral part of the Laboratories' work.

This Equipment is a photometric attachment to a spectrograph. It is one of the instruments which help to make possible a scientific approach to a study of color, a subject which affects vitally the whole field of chemical coatings. The spectrograph determines light reflectance properties in the ultraviolet, the visible and the infra-red regions of the spectrum. A special infra-red spectrograph is being built to broaden the scope of this instrument.

New

ECONOMY MODEL *Rouse* VERTICAL ROTARY MITERER

AT LOW COST



Cuts 700 MITERS AN HOUR

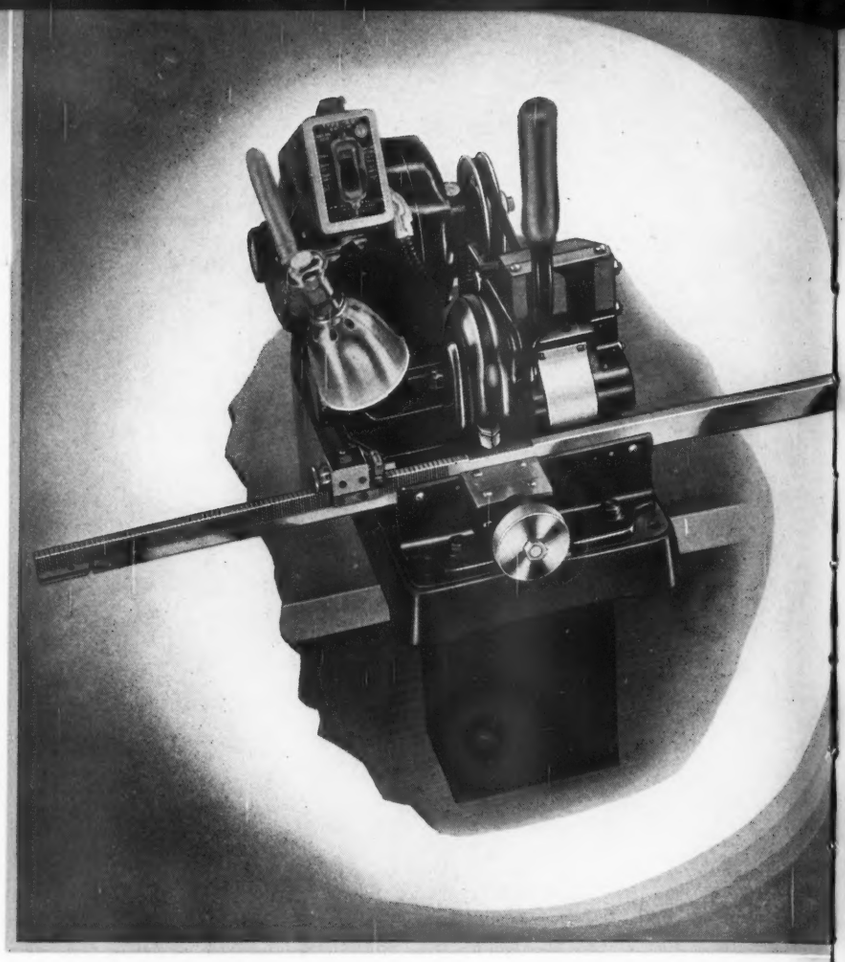
PRICED LOW for the smaller printer and publisher, the NEW *Economy Model* Rouse Vertical Rotary Miterer meets a distinct need where the capacity of the Master Model Vertical is not required.

More than 700 miters an hour may be cut on the NEW Economy Model Rouse Vertical Rotary Miterer.

Right and left hand miters are made at a single cut on strip material. It is not necessary to cut the strip to length before the miters are made. There is no preliminary "getting ready." Just place a full strip on the Rouse Vertical, set the gauge, clamp the strip, and cut one miter, or a hundred. Operation is simple. An easy pull on the convenient lever lowers the "V" shaped cutter and gives two miters almost instantly. An electric motor does all the work.

Miters cut on the Economy Model Rouse Vertical Rotary Miterer are accurate. They make perfect joining corners that facilitate lock-up and print without visible joints. Perfectly matched corners can be produced on any rule including light hairline.

Where composition is done, there should be a Rouse Vertical Miterer. The New Economy Model is the ideal machine for the smaller plant, or excellent auxiliary equipment for the larger plant where several machines are necessary for most efficient operation. Many plants have found it practical to use three or four machines.



Fast . .

Often the time saved by the Rouse Vertical Rotary Miterer will mean the difference between loss and profit on a job.

★ ★ ★

The NEW *Economy Model* Rouse Vertical Rotary Miterer *looks* speedy — and *it is*. It will do the work of hours in minutes. It enables you to meet price competition and make a profit.

Other mitering methods *cannot* possibly compete in production or quality with power mitered material. It would be as logical to set straight matter by hand.

The Economy Model Rouse Vertical Rotary Miterer will cut metal or brass strips up to 24 points in thickness. Perfect miters may be made for boxes only 12 points square — and at the same rate of speed as for longer strips.

The NEW Economy Model Rouse Vertical Rotary Miterer is equipped with ¼ H.P., 110 volt A.C. 60 cycle, single phase motor, adjustable lamp, hand clamp and cutter — just as illustrated. Placed on a bench or stand, it is ready for operation. It comes equipped with a gauge that measures strips for mitering up to 83 picas long. 24 Point capacity .....

Price **$165**

Economy Model — 36 Point capacity.....$195

OPTIONAL EQUIPMENT

Motor equipment other than above....$10.00 Extra

Extension Gauge which measures strips for mitering up to 144 picas long.....$10.00

Pedestal for mounting for use where space is limited. $20.00

Strip Material Cabinet. (same as used on Master Model Rouse Vertical Rotary Miterer.) Serves as a mounting for the Vertical Miterer, and provides a convenient storage space for rules and borders....$40.00

Ornamental Border Stop. Essential equipment for cutting decorative borders and ornaments.....$10.00

All Prices Quoted F.O.B. Chicago

Ask Your Dealer About Delivered Prices and Terms

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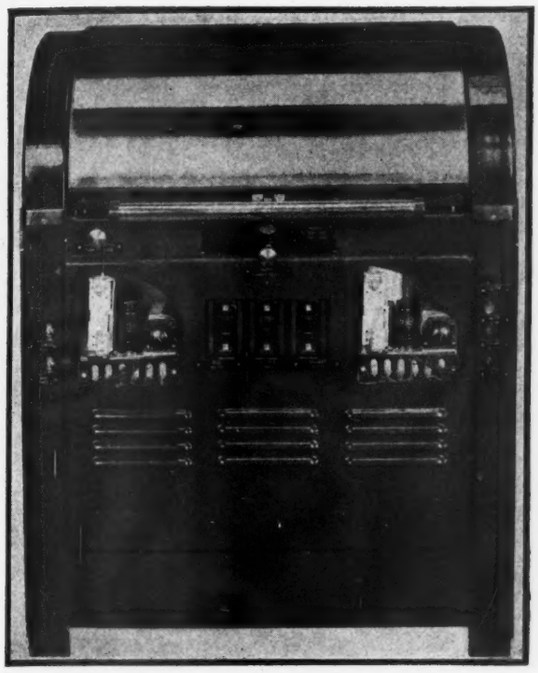
BRIEFING THE STA-HI MASTER FORMER



ELECTRONIC TIME DELAY'S

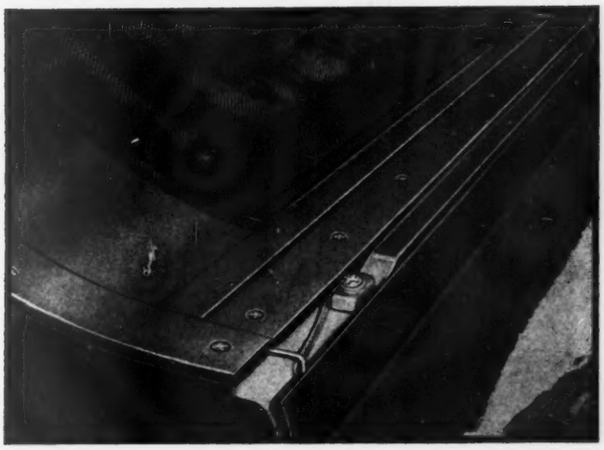
This illustration of The STA-HI MASTER FORMER has the enclosing case stripped away to show on the left the Electronic Timer which determines Vac-Shrink time, and on the right the Electronic Timer which determines Over-All period for precise timing cycles, so necessary in Maximum Shrinkage of dry mats.

THERMOSTATIC HEAT CONTROL

In the insert above, the Dial Adjustment for Base Heater is illustrated; for setting required temperature of face of dry mat. A similar Dial Adjusted Thermostat governs heat on the back of mat in Vacuum Chamber. These Dual Heat Controls accelerate deep electric baking to the innermost laminations of mats, providing Better Uniformity of Casting Levels.

ECONOMIC CHANGES HAVE COMPLETELY ALTERED DRY MAT ROUTINE BECAUSE OF MAXIMUM SHRINKAGES NECESSARY IN THE CONSERVATION OF NEWSPRINT PAPER.

THE STA-HI MASTER FORMER IS A MOST IMPORTANT FACTOR IN THIS NEW ROUTINE OF MAXIMUM SHRINKAGE, AUTOMATICALLY TURNING OUT DRY MATS READY FOR CASTING UNITS, MAINTAINING UNIFORM CASTING LEVELS. IT HAS KEPT PACE WITH THE NEW ORDER OR THINGS.



AUTOMATIC BOLSTER SUPPORT BARS

The above illustration indicates the lower Automatic Bolster Support Bar, which follows endwise shrinking of the dry mat, and together with a similar upper Bolster Support Bar serves to vacuum form and electrically bake mat bolsters to accurately fit casting units; also Vacuum Sealing mats during period of processing, Improving Casting Levels.

STA-HI CORPORATION

1020 CROCKER STREET
LOS ANGELES, CALIF.

J. M. HUBER, INC.

Announces

A new principle of News Ink manufacturing—translated into three new, practical, and fully tested News Black Inks which offer these advantages:*

- Noticeable decrease of first-impression offset.
- Less tendency to build-up on angle bars, pipes, etc.
- Less tendency to rub-off on hands and clothes.
- Cleaner and sharper reproduction of cuts, headings, and small type.
- Less strike-through or show-through.

We are now ready to supply these new HUBER NEWS BLACK INKS on short notice. Particulars may be obtained from your Huber representative or by writing direct to any Huber office: New York, Chicago, St. Louis, Boston.

HUBER PRODUCTS — HUBER INKS — IN USE SINCE 1780

*Known as the *new* Huberex, Suprex, and Econex.

A New Home for an Old Quest

IT has always been a Goodyear working principle that nothing is good enough which can be made better.

And it has been Goodyear experience that the source of betterment is less often the materials used than what is done with them.

On this premise Goodyear since its earliest days has pursued research to advance the usefulness and value of its industrial rubber products and printing supplies.

It was this unresting quest for improvement which fathered the first cord-bodied transmission belt, the first vulcanized belt-splice, the first mile-long conveyor belt, the first asbestos cord steam hose, the first high-capacity dredging sleeves plus a host of other Goodyear advances.

During this past year Goodyear dedicated a new home for its scientific resources — what is believed to be in personnel, facilities and equipment the finest laboratory for its purpose in the world.

Its bold and various activities now are concentrated on war products, but the lessons learned will inevitably insure greater service to industry when applied to the products of peace.

From the developments spurred by war, such possibilities are foreseeable as steel cable transmission belts, plastic glass, feather-light insulating materials, hundred-mile conveyor belt systems, plastic water pipes burstproof against freezing, metal-wood laminations for plane and car bodies, mildewproof tents and awnings, synthetic latex cushioning, crash-proof fuel tanks, and many like wonders on which we now are at work.

Firm in its purpose to stand forth always as "science headquarters" of the rubber industry, Goodyear aims to make it true of its products, as of life in America, that "the best is yet to come."

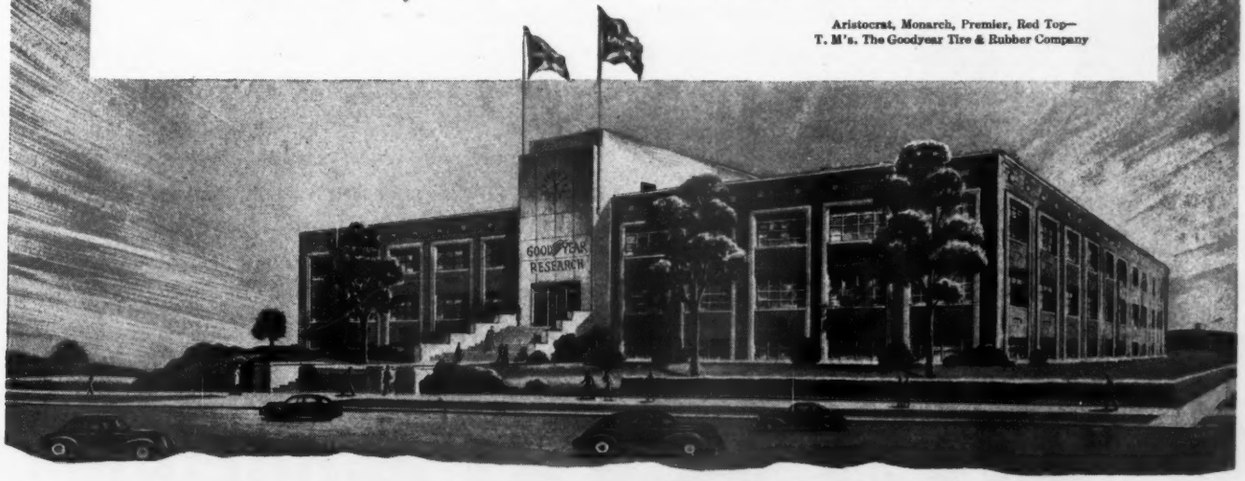
PRODUCTS OF GOODYEAR RESEARCH

in your own field

Made of special synthetic rubber—

ARISTOCRAT Top Blankets • **MONARCH** Top Sheet
PREMIER and **RED TOP** Underblankets • Goodyear Printing Rollers • Goodyear Cutting Rubbers

Aristocrat, Monarch, Premier, Red Top—
T. M's. The Goodyear Tire & Rubber Company



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WAR PRODUCTION DRIVE

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THE GREATEST NAME IN RUBBER

BUY WAR BONDS
Buy for Keeps!

tested compounds

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In meeting war's urgent demands, press blankets have a big job to do. We at Vulcan, makers of blankets for 34 years, know how tough that job is.

That's why our testing activities are being given extra emphasis during critical times of restricted materials. That's why our technical personnel, even with its skilled and experienced members, keeps checking its work.

Vulcan chemists test compounds for workability, tensile strength, oil resistance, elasticity and compressibility. Only when a blanket material meets our rigid standards, and is further proved in chemical research into aging qualities, do we use it in our products. For we realize that only such care can fully protect buyers of Vulcan press blankets in war-time.

VULCAN PROOFING CO.

First Avenue and Fifty-Eighth Street, Brooklyn, N. Y.

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PRINTING EQUIPMENT *Engineer*

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

VOL. 68 NO. 3

MacD. SINCLAIR.....Editor
ADAM HENRI REISER....Associate Editor
J. HOMER WINKLER. Contributing Editor

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TECHNICAL BOOKS

- **STANDARD BOOK ON ESTIMATING for PRINTERS —By Fred W. Hoch.** Revised 1941 edition. This book is a primer for students and a reference for printers and estimators. Every printing plant should have a copy. Author explains all operations in commercial printing plant and shows production time allowance for each in hours and decimal hours. Size, 6 in. by 9¼ in., 268 pages, $3.75 per copy, cash with order.

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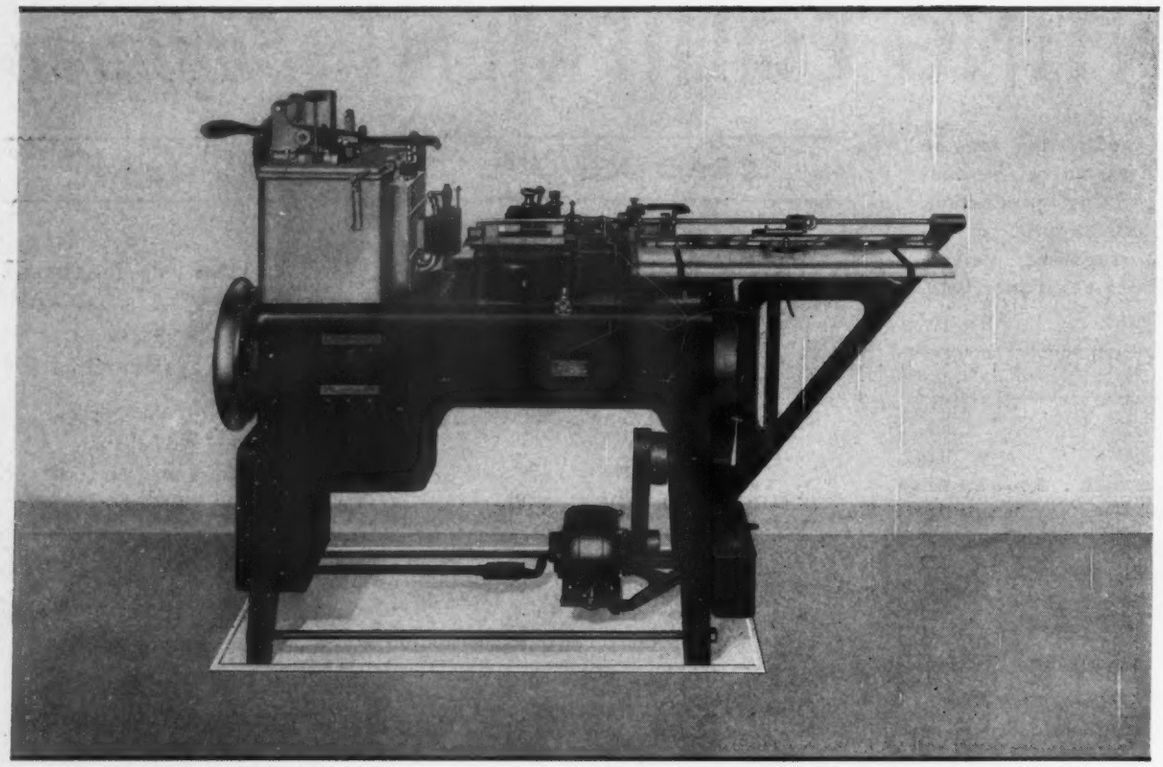
Please Note: All book orders must be accompanied by remittance. This is necessary because of narrow handling margin allowed.

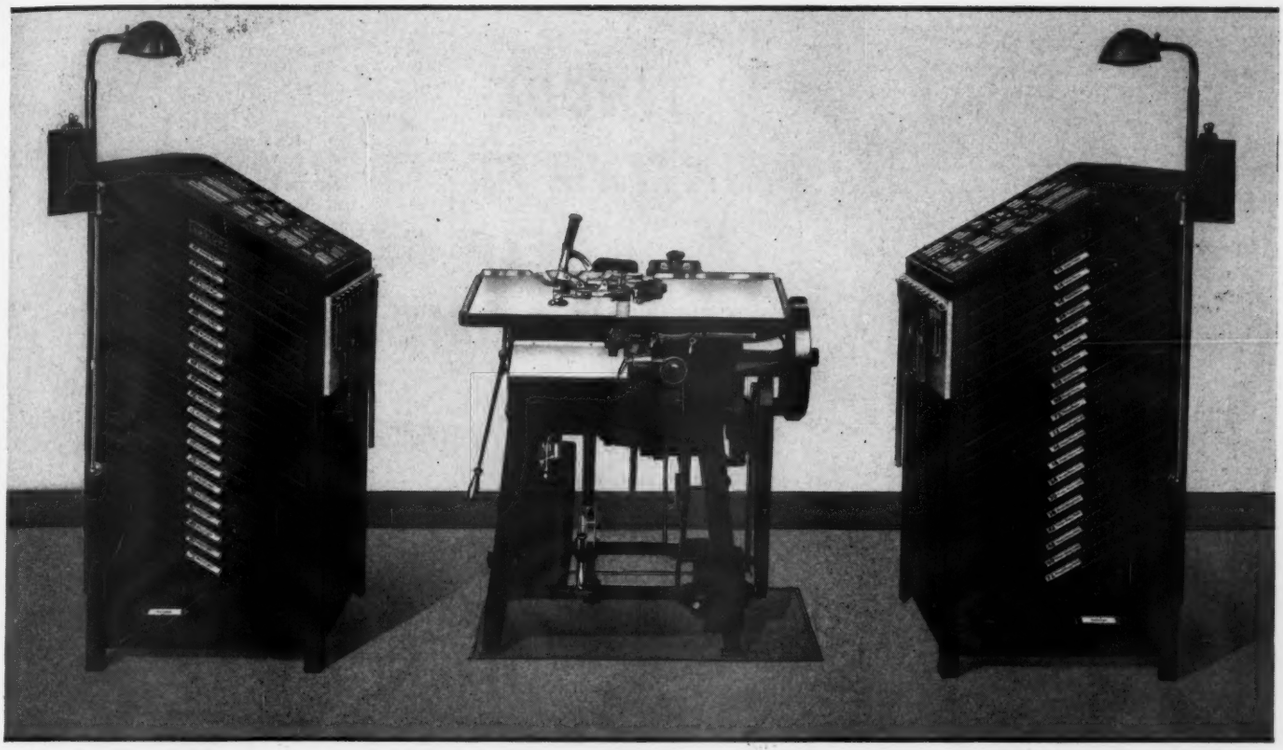
PRINTING EQUIPMENT *Engineer*
1276 West Third Street
Cleveland 13, Ohio



ELROD Features which newspaper composing-room executives find help them operate more efficiently under today's conditions . . .

- An abundant supply of leads, slugs, rules and base, so necessary for efficient composing-room operation, is produced easily and economically with the Elrod.
- Strip material is cast on the Elrod with the minimum of attention by the operator—usually only occasional replenishment of the metal in the crucible and removal of the stacked lengths of strip from the delivery table.
- Leads, slugs, rules and base, ranging in thickness up to 36-pt. and in any desired height or length, are produced with a single machine—truly simple to operate.
- Formed of molten metal under pressure into a continuous strip as it passes through a water-cooled mold, Elrod-cast strip is exceedingly solid, and free from brittle breaks and welds. Elrod base stands up under severe stereotyping pressure.
- The simplicity of the Elrod, in construction as well as in operation insures trouble-free and dependable service—which is an especially important feature these days.

Ludlow Typograph Company, 2032 Clybourn Avenue, Chicago 14, Ill.



LUDLOW Features which newspaper composing-room executives find help them operate more efficiently under today's conditions . . .

- Production of display lines is expedited because of matrix "gathering," ease of spacing and other short-cuts in composition. Type supply never runs out with the Ludlow system of slugline composition.
- The Ludlow can be used effectively by competent compositors without extensive special training.
- The Ludlow system affords complete flexibility, with easy and rapid change of typeface size and style. Superior figures, lines of mixed faces, grocery ad composition, large price figures, and other specialized requirements are easily handled the Ludlow way.
- Quadding-out and centering of lines are accomplished even more easily and quickly than spacing full-measure lines.
- With display lines Ludlow-set, the composing room can achieve the ideal of all-slug make-up.
- Ludlow slugs stand up under stereotyping pressure—eliminating make-overs and saving time and material.
- Ludlow equipment is dependable and its operation is remarkably free from mechanical trouble.

Ludlow Typograph Company, 2032 Clybourn Avenue, Chicago 14, Ill.

MANPOWER is a big word these days and the shortage is being felt in the plate and paper making field as well as in your printing plant. Consequently printing plates are "not up to snuff" and paper finishes are lower than usual.

Naturally, there is a tendency to add squeese and ink in a last minute effort to overcome these plate and paper deficiencies. This places undue strain on your presses—the rhythmic vibration of speeding cylinders is destructive to assemblies, causing excessive wear and bearing troubles that are difficult to replace. Here's a timely suggestion: Install Tingue Printing Blankets and/or Draw Sheets. They help eliminate vibration and excess impression because their rubber-like resiliency "gives and takes", maintaining the same thickness after millions of impressions—the result—a more even impression that takes less ink to cover.

"CUSHION CORK"—Called the safety blanket because its high resiliency allows it to accept extreme compressive stresses, such as web breaks, and still immediately recover its original size or gauge.

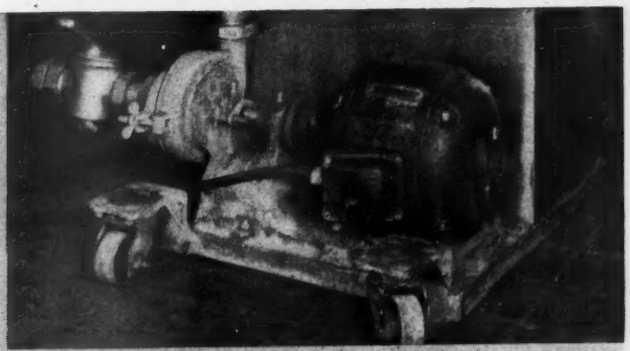
"TINGUCORK"—Of greater density than "Cushion Cork"; should be used as a companion blanket with "Cushion Cork" where a draw sheet provides the printing surface.

TINGUE BROWN AND COMPANY

114-120 EAST 23rd STREET, NEW YORK 10, N. Y.
1227 WABASH AVENUE, CHICAGO 5, ILLINOIS
723 E. WASHINGTON BLVD., LOS ANGELES 21, CAL.
507 PETERS STREET, S. W., ATLANTA, GEORGIA

CANADIAN SALES AGENTS
ROSS WHITEHEAD & CO., LTD.
MONTREAL CANADA

DOUSED DAILY!

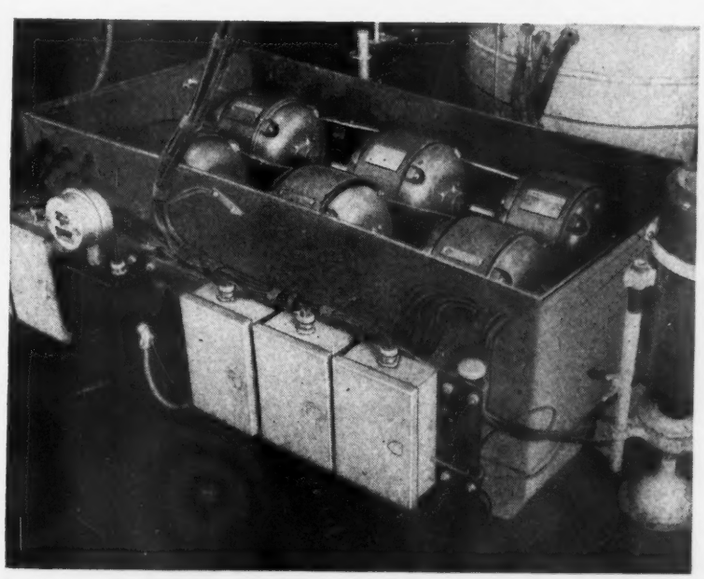


G-E Tri-Clad motor coupled to a centrifugal pump on a portable cleaner in the milk plant of H. P. Hood & Sons, Inc., Charlestown, Mass.

POWERING A DAIRY PUMP, this Tri-Clad splashproof motor gets a dousing every day as the plant is hosed down. After years of service, frame and end shields are virtually uncorroded, insulation is going strong. G-E "protection tests", both in the development of the Tri-Clad design and in our daily production, help us assure you of long-lasting service from Tri-Clads on motor-wracking jobs like this.

"Hot Box" at 100% humidity tests TRI/CLAD motor protection

REG. U.S. PAT. OFF.



Here is one of the many development tests which helped to prove the *extra* stamina engineered into the Tri-Clad design. In the bottom of this moisture box, just below the motor base, two inches of water was maintained at 212 F. The cover kept the humidity within the box at 100 per cent. By operating motors in this atmosphere to the breakdown point, G. E. got the low-down on the coil insulation's moisture resistance. Tri-Clad motors, in both open and splashproof construction, showed up unusually well in this extra-severe test. *General Electric Company, Schenectady, N. Y.*

GENERAL ELECTRIC

TRI/CLAD MOTORS

Every week more than 192,000 G-E employees purchase more than a million dollars' worth of War Bonds.

A NEW Day Is Here

In Newspaper Press Design and Construction

See the New Scott Presses in these plants:

Miami Daily News	**— 8 Units 2 Folders**
New York Herald Tribune	**— 4 Units 1 Folder**
Detroit News	**— 18 Units 6 Folders**
Boston Herald-Traveler	**— 12 Units 6 Folders**

Note the clean lines, the convenience, the ease of operation, the quiet and smooth performance of these New Scott Presses.

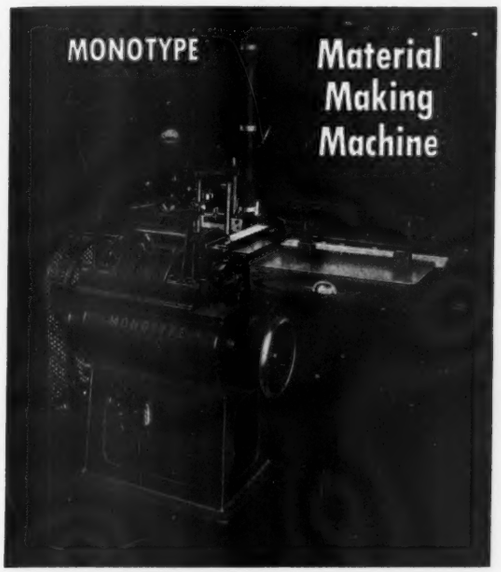
Modern form, modern materials, modern engineering—better and finer than any previous—insure better performance and longer life.

For your Post-War Plans consult with us for the latest tested modern design.

WALTER SCOTT & CO., INC.

PLAINFIELD, NEW JERSEY

The Most Versatile STRIP-MATERIAL MACHINE *in the World*



*

New Improved
Monotype Material
Making Machine

A FEW FULLY GUARANTEED FACTORY REBUILT MACHINES ALSO AVAILABLE ON ORDER

Continuous-Strip Material

(CAST IN STRIPS OR CUT TO MEASURE)

Straight-Line Rules—250 designs and sizes from 1½ to 18 point, inclusive. Send for Specimens.

Leads and Slugs—Either "high" or "low," in all sizes from 1 point to 18 point, inclusive.

"High" and "Low" Base—In 12, 14, 16, 18, 24, 30 and 36 point (strips 24 inches long).

Flush-Side and Full Face Rules—Cast flush on one or both sides; 1½ to 12 point body.

Want-Ad Rules—Special drive for resisting mat pressure; 1½ and 2 point.

Ornamental Borders—200 designs and sizes from 2 to 12 point, inclusive. Send for Specimen Sheets showing the available designs.

Wavy Rule—Several weights of rule face; sizes from 2 to 12 point.

Broaching Rules—With special shoulder, several weights and sizes.

Tie-Up Slugs—12 to 36 point, any height.

Electrotype Bearers—12 and 18 point. With firm name repeated to identify foundry forms.

One-Cast Single-Column Material

(NOT MADE ON OTHER STRIP MACHINES)

Leads and Slugs—1½ to 12 point, measures up to 15 picas in length.

Straight-Line and Want-Ad Rules—Many weights of face; 1½ to 6 point sizes; measures up to 15 picas in length.

Centered Dashes—A variety of designs and weights; sizes from 3 to 14 point; centered on measures up to 15 picas in length.

Single-Piece Braces—Centered on measures from 4 picas to 15 picas.

Logotypes—Cast from slug-machine matrices in sizes from 6 to 18 point, centered on desired measures up to 15 picas in length.

Decorative End Rules—A variety of corner designs and rule faces in sizes from 3 to 6 point; made to match in weight and position.

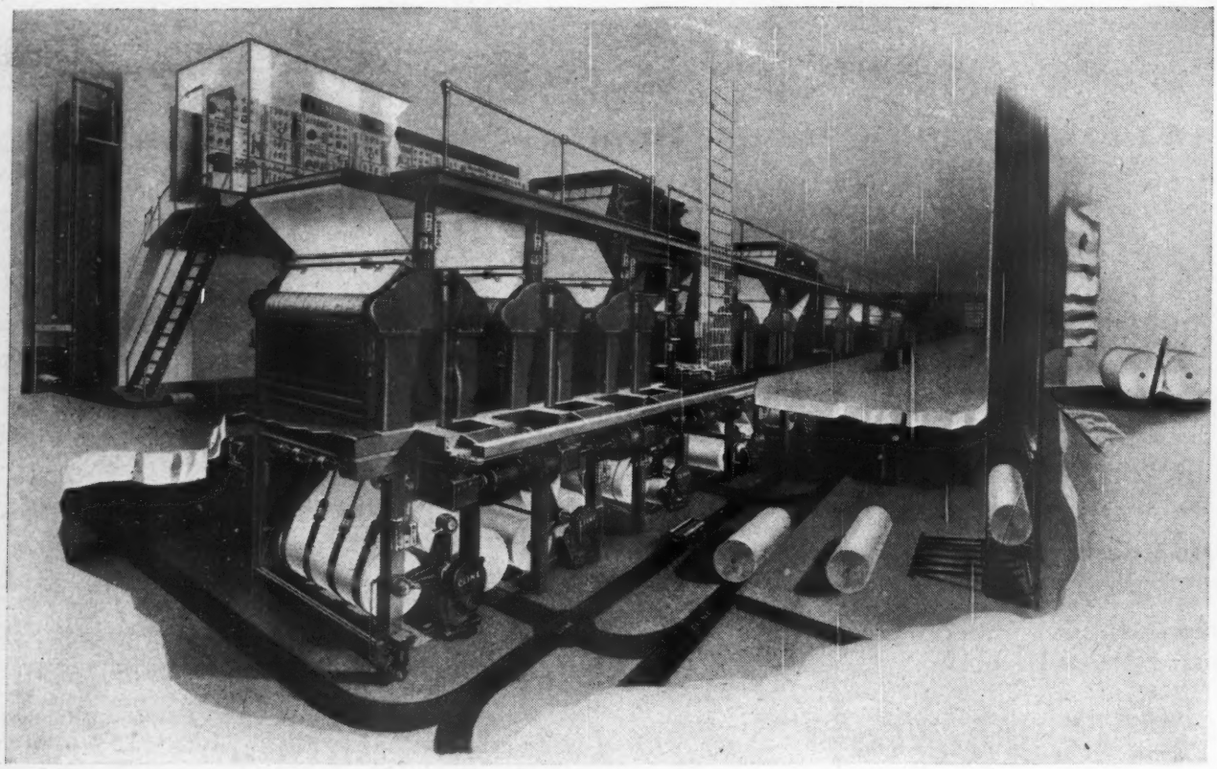
LANSTON MONOTYPE MACHINE COMPANY

MONOTYPE BUILDING, TWENTY-FOURTH AND LOCUST STREETS, PHILADELPHIA 3, PENNA.

Composed in Monotype 20th Century Family and Monotype Stylescript, No. 425

CLINE

Correlated Unit Drives, Reels, Tensions, and Pasters—



TYPICAL CLINE EQUIPMENT INSTALLATION

CLINE ELECTRIC MFG. CO.

MAIN OFFICE: 211 W. WACKER DRIVE, CHICAGO 6, ILL.

Western Office
CROCKER FIRST NAT'L BANK BLDG.
SAN FRANCISCO, CALIF.

Eastern Office
220 EAST 42nd STREET
NEW YORK CITY

CLINE SYSTEM — QUALITY NAME SERVICE FAME — CLINE ELECTRIC MFG. CO. CHICAGO — CLINE WESTINGHOUSE

ENGINEERED FOR TODAY...

NEWS INKS BY MORRILL

WELCOME!

A.N.P.A. MECHANICAL CONFERENCE

HOTEL STATLER, CLEVELAND

THE GEO. H. MORRILL COMPANY also welcomes you, gentlemen, at the 17th Mechanical Conference. Through your efforts and cooperation we have been able to continue as the leader in the supply of newspaper inks, particularly in regard to the change-over from 32 lb. to 30 lb. paper. Our Research Laboratories have met this problem by formulating new inks to help the production of better looking newspapers.

War restrictions have caused problems which have been met as they arose through working in close cooperation with newsprint producers and manufacturers of printing presses. This complete unity of purpose is our long established tradition, has stood the stress of wars and will always work with you and for your best interests.

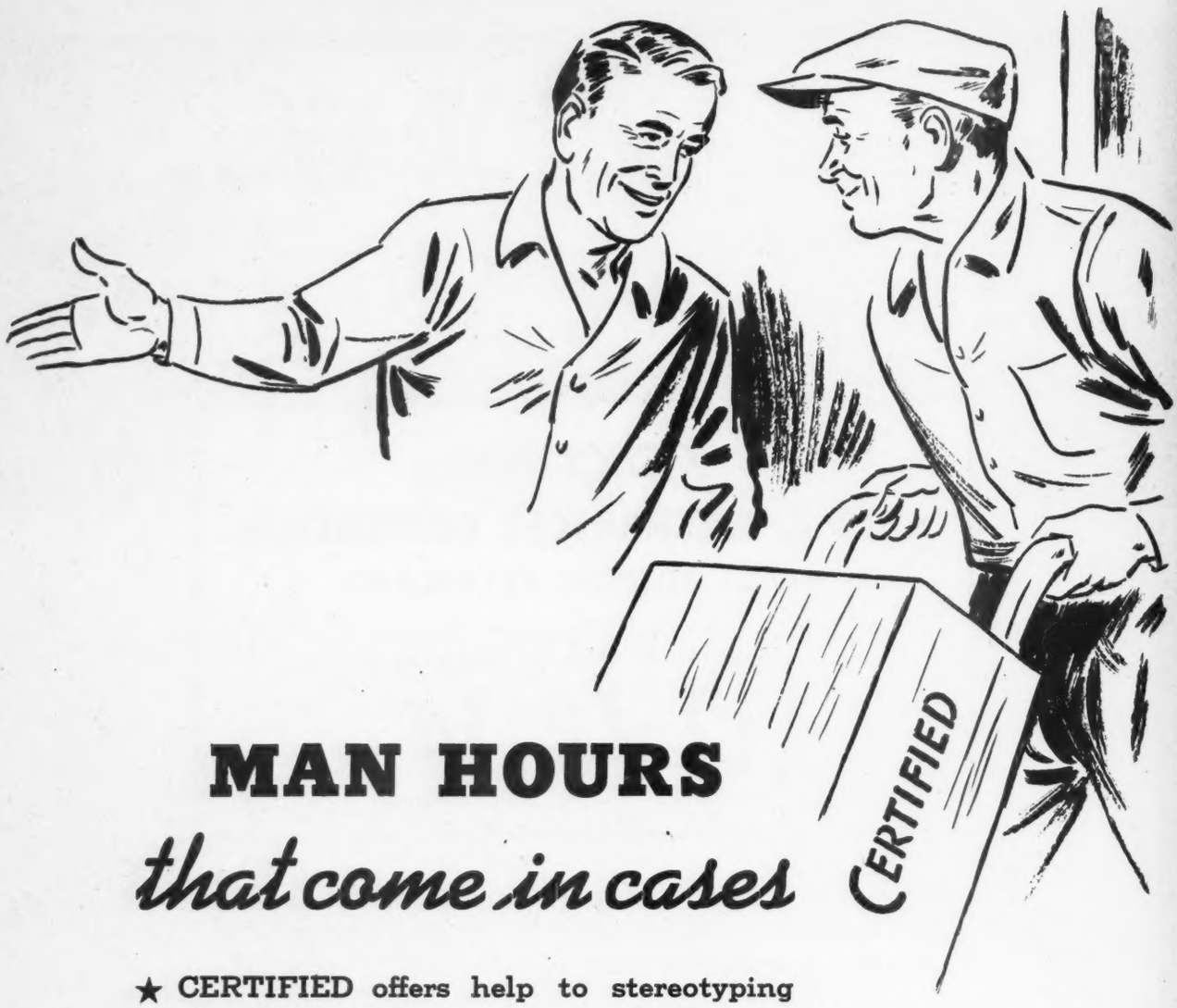
Morrill always has been the leader in newspaper inks and will continue so after the war.

GEO. H. MORRILL CO. *Division GENERAL PRINTING INK CORP.*

100 SIXTH AVENUE, NEW YORK, N. Y.

FACTORIES: NORWOOD, MASS. · CHICAGO, ILL. · TACONY, PHILA., PA. · SAN FRANCISCO, CAL.

BRANCHES: BOSTON · NEW YORK · PHILADELPHIA · DETROIT · CHICAGO · ST. LOUIS
MINNEAPOLIS · FT. WORTH · LOS ANGELES · SAN FRANCISCO · SEATTLE



MAN HOURS

that come in cases

★ **CERTIFIED offers help to stereotyping departments with war-sent problems of manpower. . . . Every Certified mat contains potentialities for labor saving through easier molding, quicker scorching, low temperature casting and freedom from the need to re-melt first casts. . . . Stereo forces that are hard pressed to make schedules often find more speed and less grind through a change to Certifieds, with benefits all the way from the news room to the reader's door step.**

For dependable stereotyping
rely on Certified Mats

CERTIFIED DRY MAT CORPORATION

9 Rockefeller Plaza, Dept. M, New York 20, N. Y.

Certified
DRY MATS

Arrowhead Black & Colors

improved appearance

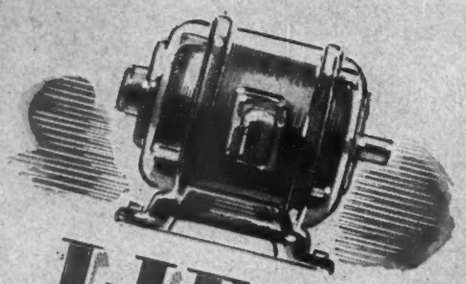
perfect press performance
on any press – on any paper

smudgeless – odorless

Howard Flint Ink Company

Detroit Chicago Houston New Orleans Atlanta Denver Indianapolis Cleveland

DO YOUR MOTORS CARRY . . .



LIFE INSURANCE

The life of a motor is no longer than the life of its bearings. Bearing failure means motor failure and shutdowns. And the bearings may fail for any or all of the following reasons:—(a) poor design and construction; (b) neglected lubrication; (c) use of lubricant of poor quality; (d) dust and dirt in the bearings.

MOTOR MANUFACTURERS WHO HAVE ADOPTED NORMA-HOFFMANN "CARTRIDGE" BALL BEARINGS ARE PROVIDING THEIR CUSTOMERS IN-BUILT MOTOR LIFE INSURANCE--IN EFFECT, A GUARANTEE OF LONGER, MORE TROUBLE-FREE, LOWER-COST MOTOR PERFORMANCE—because:—

A. The "CARTRIDGE" BEARING is a NORMA-HOFFMANN PRECISION product, designed EXPRESSLY to meet electric motor requirements.

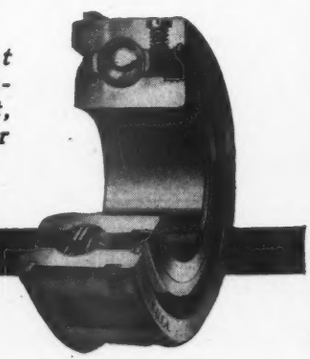
B. With its double-row width, the "CARTRIDGE" BEARING provides WITHIN ITSELF a supply of lubricant at least twice that of any other single-row ball bearing.

C. The "CARTRIDGE" BALL BEARING is loaded at the factory with NORMA "STABILITY-TESTED" GREASE—a high-duty lubricant which has exceptional life and a wide temperature range, and moreover is chemically stable and water-repellent.

D. The highly efficient, wearless metal seals of the "CARTRIDGE" BEARING, so effective in KEEPING LUBRICANT IN the bearing, are equally effective in KEEPING DUST AND DIRT OUT. And they are removable and replaceable, making bearing inspection easy.

These, and other, distinctive features explain why so many motor manufacturers, seeking to assure their customers MAXIMUM MOTOR LIFE, have adopted NORMA-HOFFMANN "CARTRIDGE" BALL BEARINGS for their latest and most efficient motor models.

Ask for motors carrying the "life insurance" that NORMA-HOFFMANN "CARTRIDGE" BEARINGS provide. They will be a sound and lasting investment, returning good dividends in lower costs, longer life, and freedom from shutdowns.



NORMA-HOFFMANN BEARINGS CORP'N, STAMFORD, CONN. FOUNDED 1911

TO WIN THE WAR • WORK • FIGHT • BUY WAR BONDS

WHEN YOU USE NEW ENGLAND BLANKETS YOU USE ORIGINALS NOT IMITATIONS — FOR NO ONE HAS EVER DUPLICATED OUR NEW ENGLAND OIL PROOF FACED RUBBER BLANKETS BROWN FACED RUBBER BLANKETS···DELUXE MONOCORK BLANKETS HIGH SPEED AUTOMATIC FELT···KNOWN, SOLD AND USED BY WORLD'S LEADING NEWSPAPERS

NEW ENGLAND NEWSPAPER SUPPLY CO.

164 Fremont Street

WORCESTER, MASS.

BRANCH OFFICES

NewYork City 230 W. 41st St. Chicago, Ill. 1950 Daily News Bldg.
San Francisco 321 DeYoung Bldg. Portland, Ore. 388 Oregonian Bldg.

To Mechanical Men Who Are Post War Holding Mechanical Conferences in their Own Shops RIGHT NOW

AT National Mechanical Conferences . . . At District Mechanical Conferences . . . In Stereotyping Departments . . . and wherever mechanical men get together, Directomat is now accepted as the word for Direct Pressure molding—and direct pressure is accepted as the perfect molding method.

Based on outstanding pre-war performance, Directomatting is destined to be the most widely accepted stereotyping method in post-war years. The exacting tests of day-to-day R.O.P. molding in representative plants including speed and fine reproduction have won universal approval of Directomatting by the best minds in the newspaper business.

Likewise and to an even greater degree, Directomat stereotyping has, and is, resulting in economies in time, type, and technical personnel. Wartime shortages are driving home every advantage and economy of Directomat molding, both to stereotypers who fortunately have Lake Erie Directomats, and to those who wish they had. The latter far-sighted men are

PLACING ORDERS NOW FOR FUTHER DELIVERY

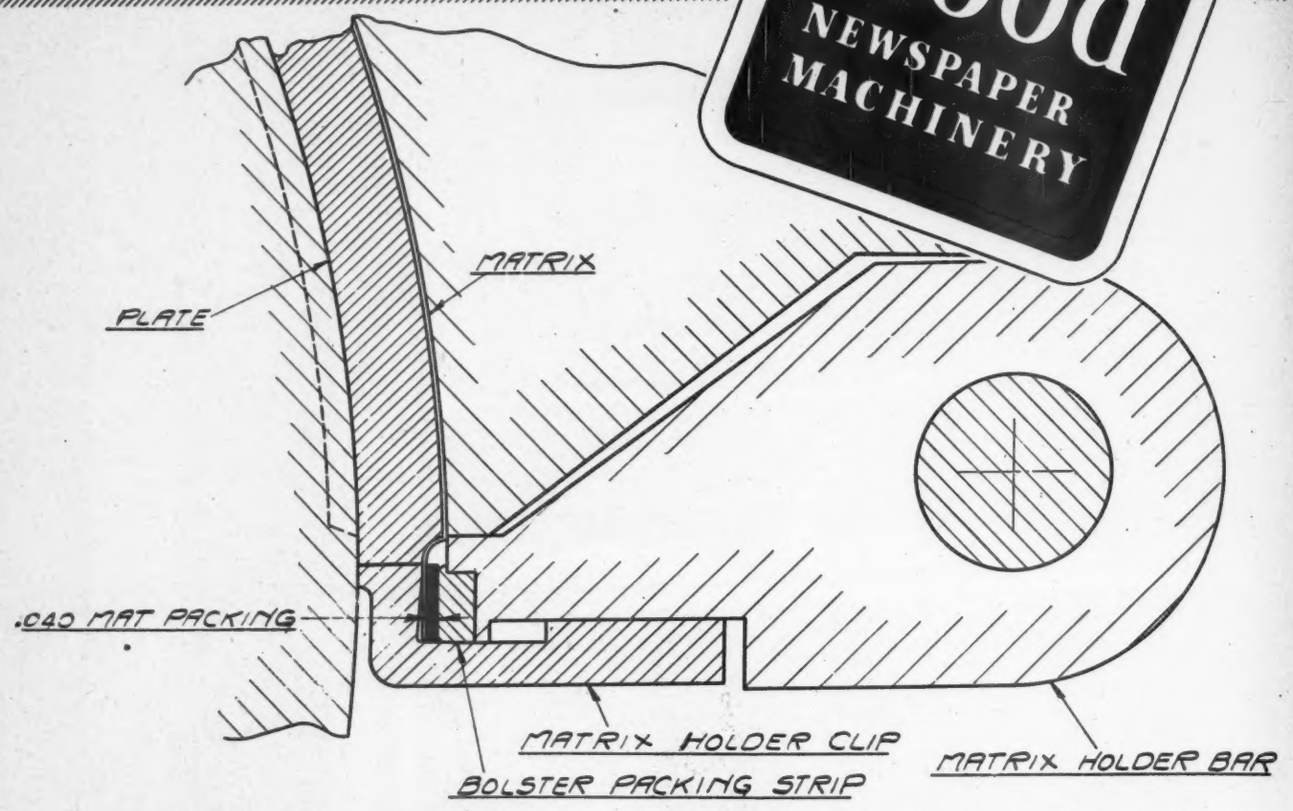
Directomat presses are in use in leading newspapers from coast to coast and from Canada to the Gulf. Just a few of the newspapers who have been using Lake Erie Directomats for up to five years are the MILWAUKEE JOURNAL, PONTIAC PRESS, NEW ORLEANS TIMES-PICAYUNE, BUFFALO COURIER-EXPRESS, GREEN BAY PRESS - GAZETTE, TORONTO STAR, SPOKANE SPOKESMAN-REVIEW, DESMOINES REGISTER-TRIBUNE.

LAKE ERIE
ENGINEERING CORP.
BUFFALO, N.Y. U.S.A.

LAKE ERIE
DIRECTOMAT

Maintenance Hint for War-Time

Wood
NEWSPAPER
MACHINERY



PACKING MATRIX HEAD AND FOOT BOLSTERS

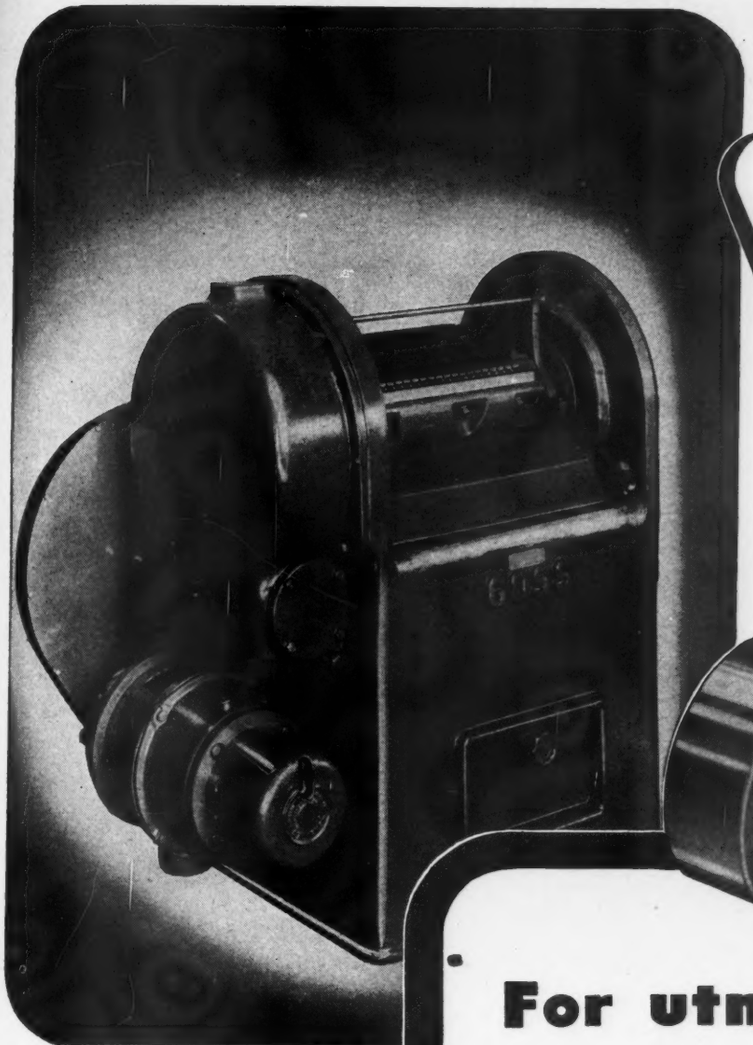
A new method of processing mats for casting in Autoplate equipment has appealed to many Autoplate users where it has been put into operation. The method is to use .040" packing in the head and foot bolsters of the mat and reduce the height of the bolster packing strip .040".

It has been the experience of mechanical superintendents and foremen of stereotype foundries where this has been done, that the packing on the head and foot permits more resiliency, and tighter setting of the matrix holder clips. This prevents leaks along the head and foot of the page and, in turn, eliminates the danger of pulldowns.

In some of the larger Metropolitan offices, this method has been in operation for the past six or more years. We have thoroughly investigated the method and recommend it. The only change on the Autoplate is to reduce the height of the bolster packing strip .040". No changes are necessary on the matrix holder clips.

WOOD NEWSPAPER MACHINERY CORPORATION
PLAINFIELD, NEW JERSEY
Executive Offices: **501 FIFTH AVENUE, NEW YORK 17, N. Y.**

When writing the advertiser please mention PRINTING EQUIPMENT *Engineer*—June 1944



Built by
THE GOSS PRINTING
PRESS CO.

For utmost rigidity
on curved shavers

UTMOST RIGIDITY is the thing that counts in the knife bar of this electrically-controlled Heavy Duty Curved Shaver. And that's what it gets from two SKF Preloaded Ball Bearings on each side. Three other SKF's support the worm shaft which is part of the reduction drive. The results are obvious. Rigidity is assured. Radial and thrust loads are easily carried, and freedom from bearing trouble is certain. Give any machine an SKF, and you give it Performance. 5578

SKF INDUSTRIES, INC., PHILA. 34, PA.

SKF

ball and roller bearings

The Sooner You Act Now

The Sooner you'll get delivery...

Project yourself into the inevitable "tomorrow" when new presses will be available again... If you have an ATF certified reservation with a *definite* priority number, you'll get delivery as quickly as the press you need is available and ready for delivery. The sooner you act NOW . . . the lower the priority number you'll get!

Ask your ATF Salesman TODAY for details and application on any of these presses:

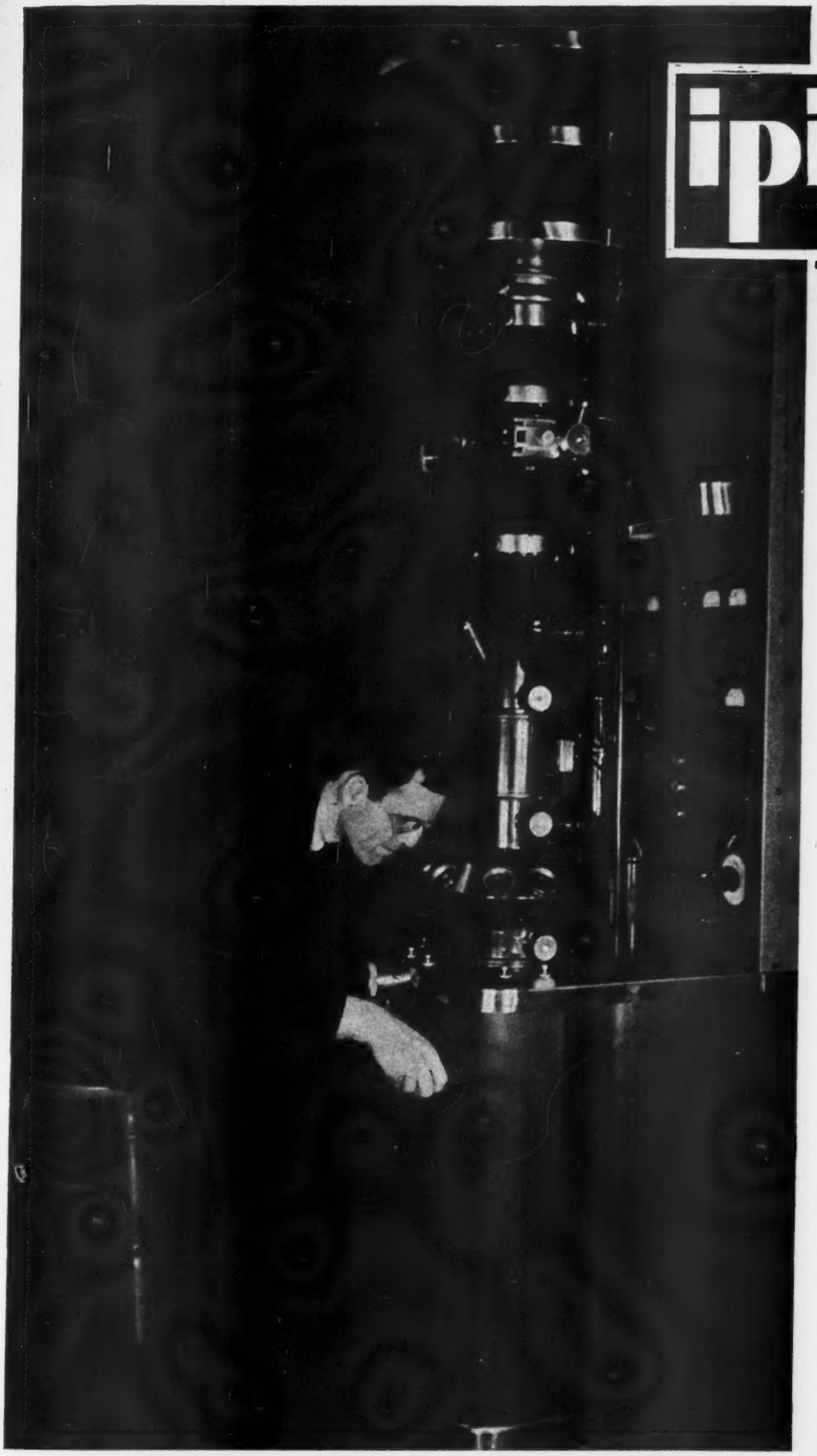
LETTERPRESS
- STYLE C KELLY
- NO. 1 KELLY
- NO. 2 KELLY
- KELLY CLIPPER
- LITTLE GIANT

OFFSET
- LITTLE CHIEF
- CHIEF
- BIG CHIEF

ATF

American Type Founders

Branches and Dealers in Principal Cities



"REPORTERS" GET THE NEWS FIRST!

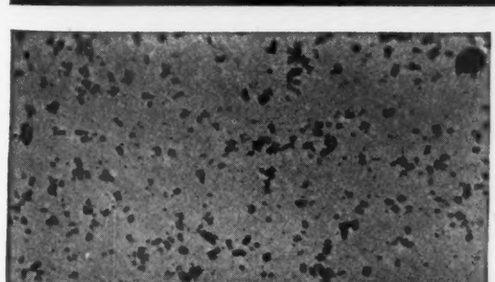
The IPI "Reporter" is an ink chemist. To help you solve your printing problems he is continually seeking new facts about printing pigments. Here you see him using IPI's electron microscope—a "super microscope" with a resolving power 50 times greater than the very best light microscopes! The electron microscope enables IPI to determine, with a degree of accuracy never before possible, the true nature of various pigments and how they react when mixed with other materials!

Printers in many fields have long recognized International Printing Ink's technical skill and experience in the manufacture of printing inks. This leadership is the direct result of continuous research and the use of such precision equipment as the electron microscope, IC Viscometer and the G. E. Recording Spectrophotometer.

Years of experience has given IPI the "know-how"... *and IPI is the only ink manufacturer to combine that "know-how" with the latest and best development and control equipment!* For the "latest news" about printing inks . : : Keep in Touch with IPI!

The IPI News Ink Color Guide

IPI has been a pioneer in the development of news web colors and, for many years, has been serving leading newspapers with news blacks. Send today for "Newspaper Web Press Colors"—a news ink color guide which covers all phases of newspaper printing with colored ink. Write to International Printing Ink Division of Interchemical Corporation, Empire State Building, New York 1, N. Y.



Iron Blue—13,000 Diameters with Electron Microscope.

1250 Diameters with Light Microscope.

A REPORT TO THE

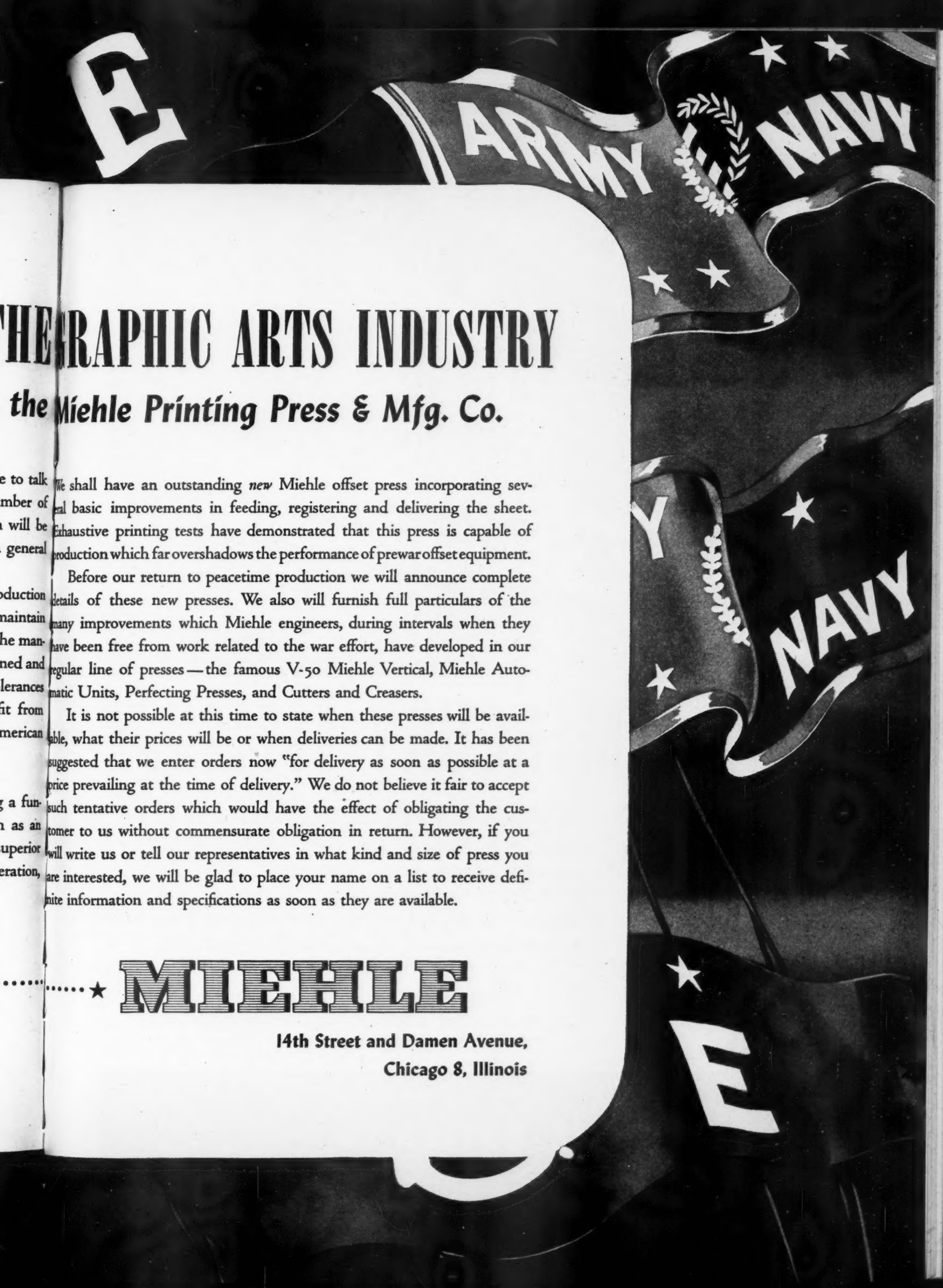
From the

The end of the war is not yet in sight and the time has not come to talk in detail of postwar plans. Nevertheless because of the great number of inquiries we have received regarding the Miehle equipment which will be available after the war, we believe it is in order for us to make a general report to the Graphic Arts Industry.

During the past four years Miehle has concentrated on the production of Naval Ordnance. We have learned much that will help us to maintain and further improve traditional Miehle quality when we return to the manufacture of printing presses. We will benefit from the experience gained and new manufacturing techniques developed in maintaining close tolerances despite steadily increasing rates of production. We also will benefit from many of the metallurgical and other technical advances made by American Industry generally during the war period.

Postwar Miehle presses will be better than ever.

We shall have a *new*, 22 x 28 sheet size flat bed press utilizing a fundamentally new bed motion. This press, which will be built both as an Automatic Unit and as a Cutter and Creaser, has proved itself far superior to any previous press of the same type in speed, smoothness of operation, dependability of performance and quality of results.



THE GRAPHIC ARTS INDUSTRY

the Miehle Printing Press & Mfg. Co.

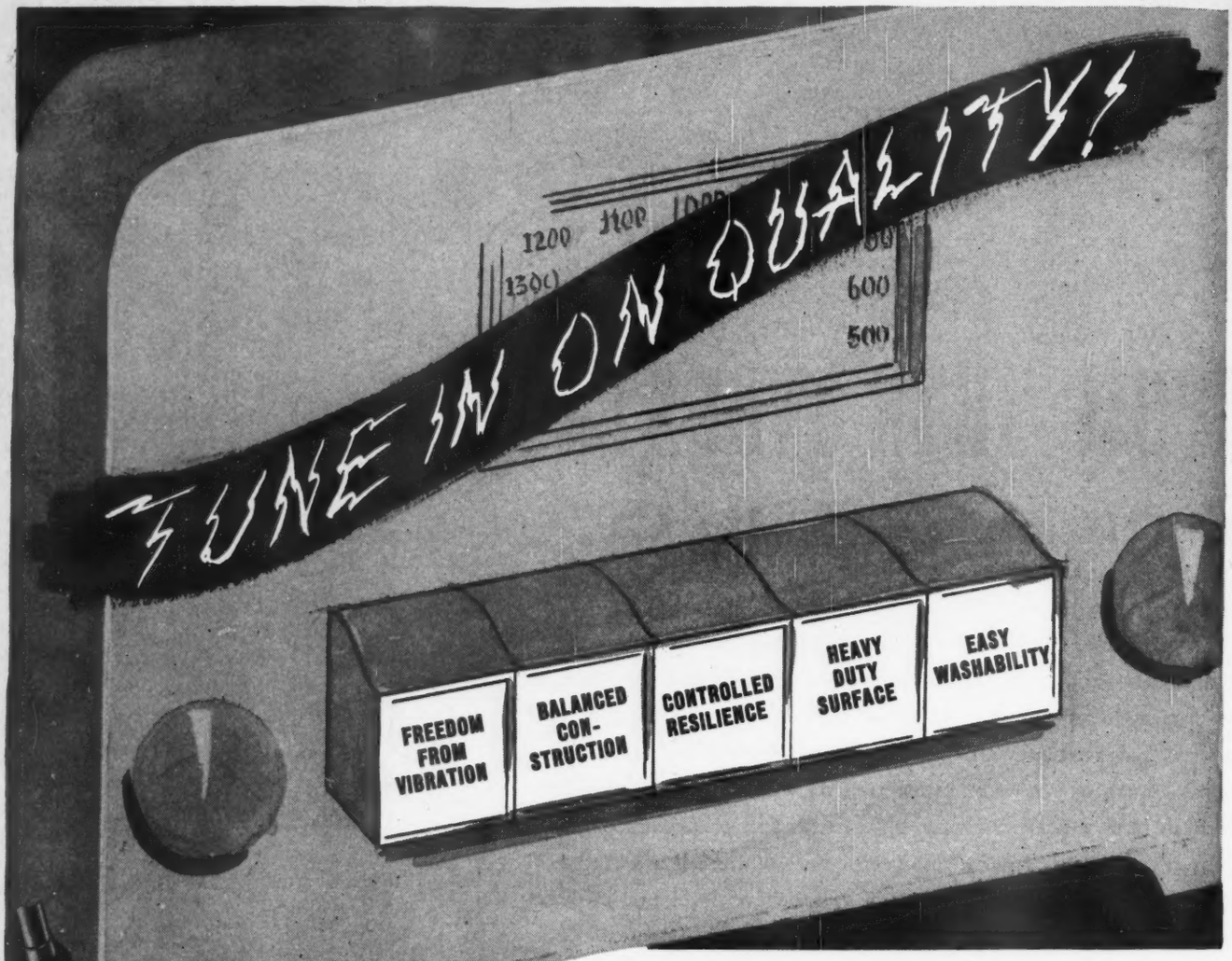
We shall have an outstanding *new* Miehle offset press incorporating several basic improvements in feeding, registering and delivering the sheet. Exhaustive printing tests have demonstrated that this press is capable of production which far overshadows the performance of prewar offset equipment.

Before our return to peacetime production we will announce complete details of these new presses. We also will furnish full particulars of the many improvements which Miehle engineers, during intervals when they have been free from work related to the war effort, have developed in our regular line of presses — the famous V-50 Miehle Vertical, Miehle Automatic Units, Perfecting Presses, and Cutters and Creasers.

It is not possible at this time to state when these presses will be available, what their prices will be or when deliveries can be made. It has been suggested that we enter orders now "for delivery as soon as possible at a price prevailing at the time of delivery." We do not believe it fair to accept such tentative orders which would have the effect of obligating the customer to us without commensurate obligation in return. However, if you will write us or tell our representatives in what kind and size of press you are interested, we will be glad to place your name on a list to receive definite information and specifications as soon as they are available.

MIEHLE

14th Street and Damen Avenue,
Chicago 8, Illinois



Use MERCURY NEWSPAPER ROLLERS

It's easy as tuning a push-button radio to make-ready with Mercury Newspaper Rollers. Their balanced construction assures vibrationless performance at top speeds, fewer adjustments, finer results. Mercury has just the right "tack," and the surface is non-porous, blemish-free. They're GOOD.

Best wishes to all attending
the A.N.P.A. MECHANICAL CONFERENCE

D. M. Rapport
President

RAPID ROLLER CO.

Federal at 26th
Chicago, Illinois

GREETINGS

to Mechanical Executives attending the ANPA Mechanical Conference

It is our wish that you will have a profitable technical Conference here in Cleveland. You men certainly need to get together and discuss the abnormal problems created by the war, as well as discussing plans for after-the-war operations.

Maintainance of Quality

We are happy to report that we have been able to maintain the quality of our products thus far. If anything occurs to interfere with maintaining that high standard we'll let you know about it immediately.

Booth's Zink Cut Cement. To those of you men who are not now using this cement, we'd like to talk to you about its properties and how it can save production annoyances in your plant. Fastens all kinds of cuts to wood or metal base. This cement was first placed upon the market 10 years ago. Original customers are still using it regularly.

ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

Booth's Black Rubber Rolls

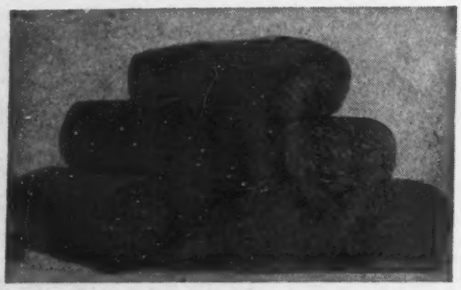
For line-composing machine keyboards are of pre-war quality. These rolls are depended upon in many plants to provide instant turnover of keyboard cams. If you haven't tried them, let us send you a trial pair at $1.45. Per dozen price is $7.75.

THE E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

LEADING DAILY NEWSPAPERS USE EASTERN SUPPLIES

"FLECTO"

GUMMED BACKING FELT



"FLECTO" Gummed Backing Felt is packed in individual containers of 5 sheets each, for convenience in handling.

"FLECTO" gummed backing felt is a product of modern chemical research. It is of finest quality, both in the felt and adhesive, and is sold on a money-back guarantee.

Here are "FLECTO" facts!

It will stick fast, on any mat, regardless of heat used in scorching. Its adhesive will not crack, peel, slip or crystallize.

It tears easily and cleanly, without ragged ends.

Its gauge is uniform throughout and all "Flecto" is gauged accurately.

"FLECTO" felt is well bonded throughout and will not peel or separate in layers.

It is soft and pliable, assuring conformity to the mat and easy shrinking with the mat. Hundreds of users say "THERE IS NO BETTER BACKING FELT MADE."

SPECIFICATIONS

ADHESIVES—The special adhesive applied to "Flecto" is scientifically formulated to hold fast on all types of dry mats. Climatic conditions will not affect it.

FELT—This felt is produced under rigid control so that it is uniformly soft and porous, to permit the quick and easy escape of steam.

GAUGES AND SIZES

Gauges .021, .025, .030 (Green) sheeted 18″ x 24″.

Gauge .035 (Red) sheeted 18″ x 24″.

Gauges .040, .045 (Green) sheeted 18″ x 22″.

Gauges .050, .060 (Gray) sheeted 18″ x 22″.

Cut into strips 9″ or 18″ long and ⅛″ to 1″ wide at no extra charge.

"BLUE STAR"

MATRIX SEALING TAPE

(Rolls — 800 feet)

¼″	wide	120 rolls to bdle.
½″	"	60 rolls to bdle.
⅝″	"	45 rolls to bdle.
¾″	"	40 rolls to bdle.
1″	"	30 rolls to bdle.
1½″	"	20 rolls to bdle.
2″	"	15 rolls to bdle.
2½″	"	12 rolls to bdle.
3″	"	10 rolls to bdle.

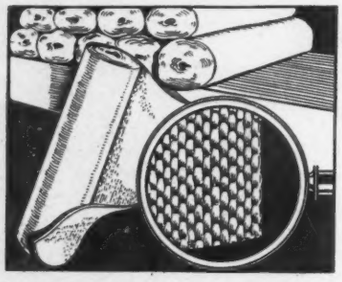
5% discount on full bundles — 30 inches. Coated with a special heat resistant gum. This tape is made of light weight flexible .035 Kraft paper to insure close binding.

"TRU-MOLD"

CORK MOLDING BLANKETS

The weight and density of each blanket is controlled scientifically to produce molders that are uniform. Correct thickness is maintained over the entire blanket, thus insuring satisfactory results in the faithful reproduction of even the most difficult forms.

ASBESTOS CLOTH



Plain or bronze wire woven asbestos, in sizes of all standard scorchers. Odd sizes can be furnished in any length desired. Plain asbestos ⅛″ thick in either 28″ or 36 inch width. Bronze Wire Woven asbestos ⅛″ thick in either 28″ or 36″ width. Bronze Wire Woven Asbestos ⅛″ thick in 28″ width only.

SUPERIOR TAILBOARDS

.054 and .030 gauges, for Flat and Curved Casting.
Flat Casting Board — .025 gauge.

Autoplate Belts	Cut Mounting Tacks	Direct Pressure Molletons
Router Bits	Hand Mitts	Blue Dryers
Router Belts	Molding Creepers	Mallets
Circular Saws	Molding Boards	Planer Blocks
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Write today for our complete 36-page catalog of supplies for the graphic arts. The items shown in this advertisement are only a few of the hundreds of articles that we supply to newspapers throughout the United States. Eastern Newspaper Supply Company is equipped to give you prompt service on all products except those the manufacture of which have been curtailed due to the war. Send today for your free copy of this catalog.

EASTERN NEWSPAPER SUPPLY

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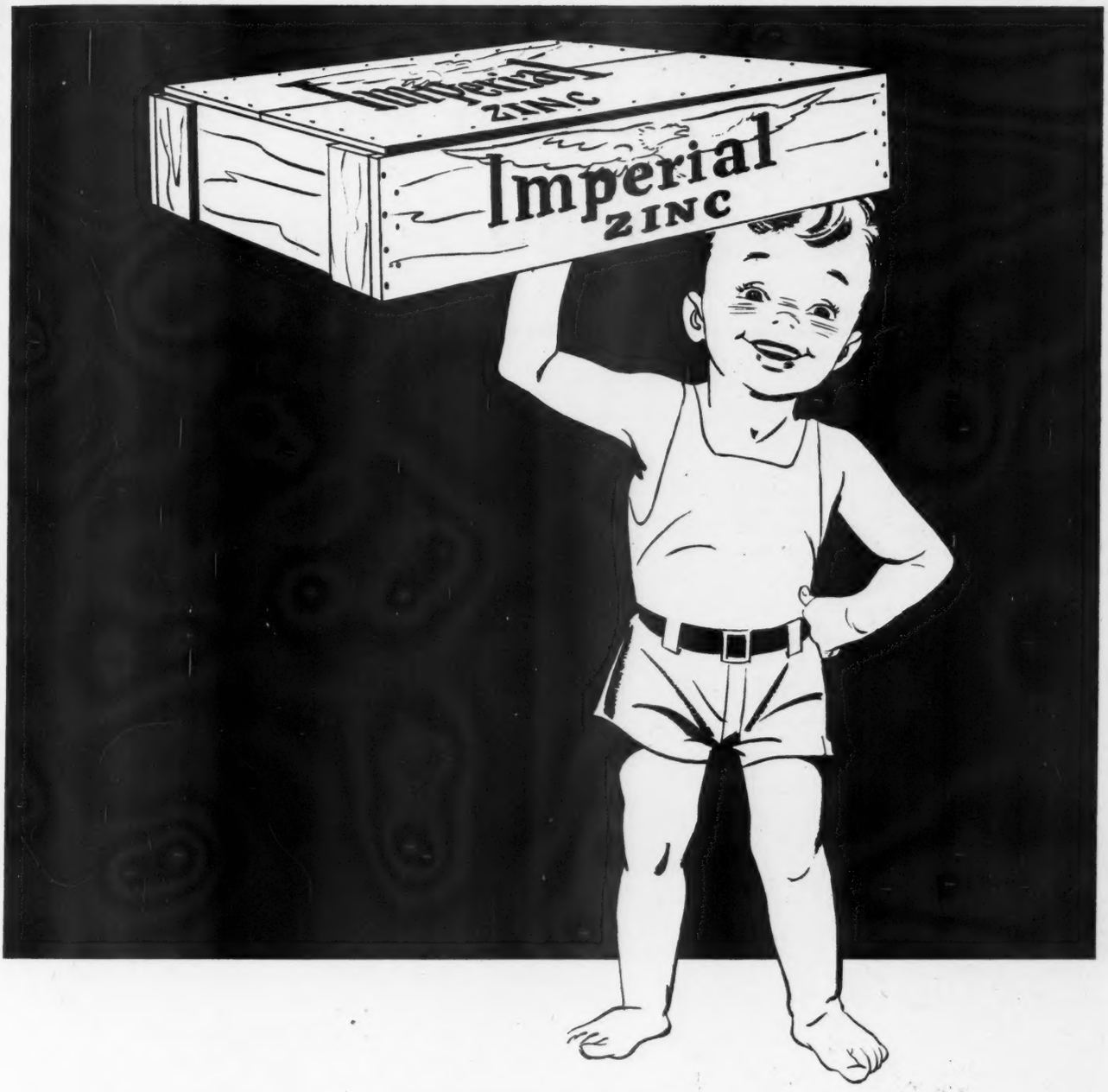


HE'S QUITE SOME BABY

IMPERIAL REGISTER-REDIBAK ZINC is the "Baby" of the engraving industry —and he's quite some "Baby"! His growth is based on results. With the help of metallurgists having years of experience, he has introduced new ideas which engravers like . . . . Redibak plastic backing . . . . objectionable stretch removed . . . . a fast etching, "universal" zinc . . . . the zinc scrap container . . . . direct factory representation whereby constructive suggestions are referred to the factory by salesmen instead of making a round about trip through an agent, etc. With these new ideas, the "Baby" has won the confidence of newspaper engraving departments. WATCH HIM GROW!

THE IMPERIAL TYPE METAL CO.

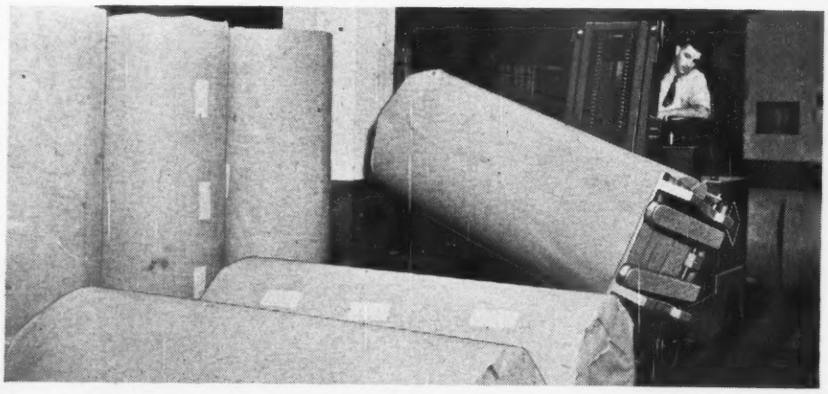
Serving The Graphic Arts Industry Only

PHILADELPHIA NEW YORK CHICAGO

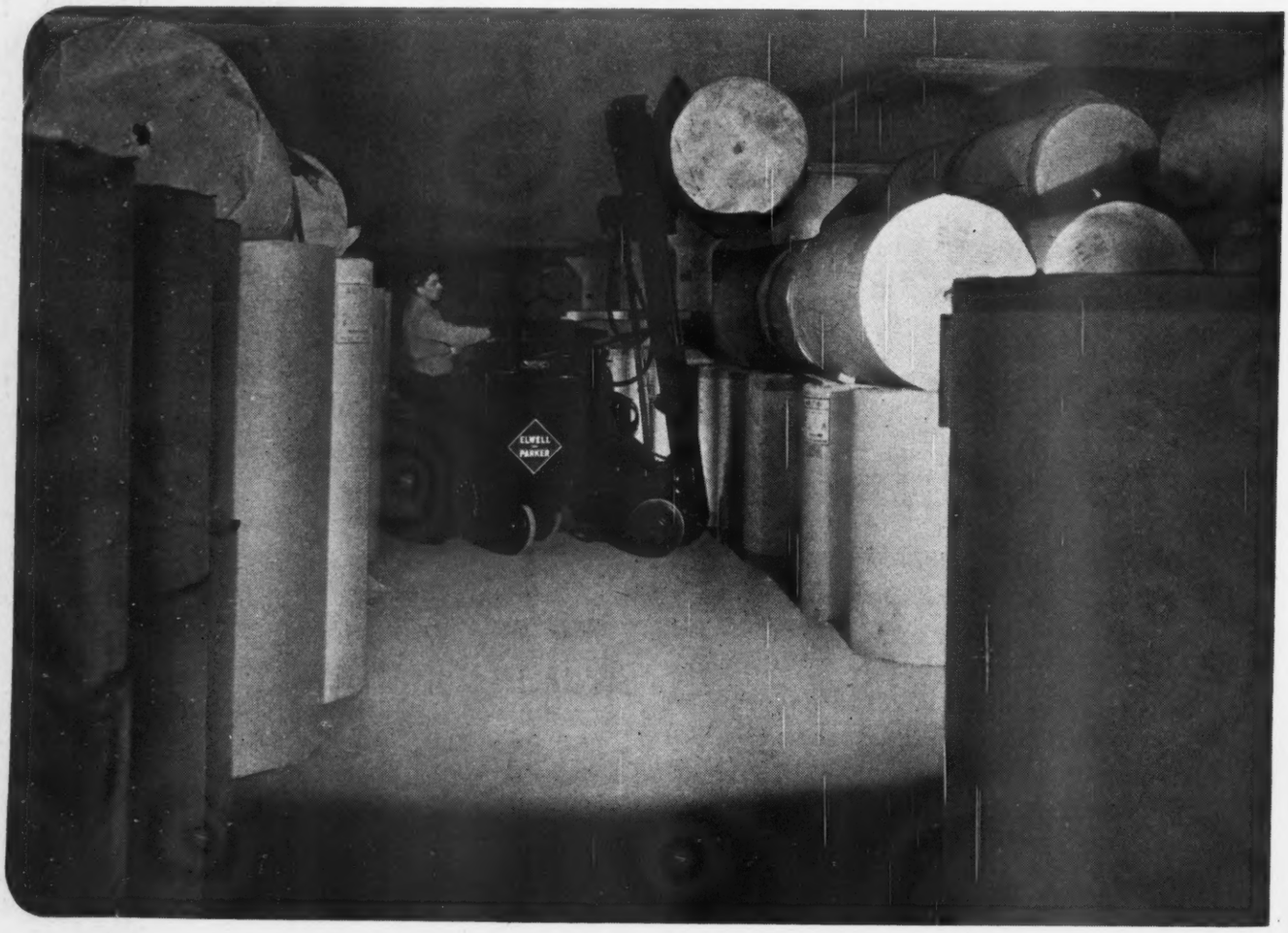
Imperial

Modern Roll-Handling
Reduce Newsprint Waste

Newsprint in present sizes was but a wish in Mill Executives' minds when Elwell-Parker began building modern Roll-Handling Trucks like those illustrated here. ▶



Only by this means can rolls be taken off the machine at the Mill—transported for any distance, to any point—rotated to either horizontal or vertical position —and tiered to the warehouse roof at Mill or Newspaper Plant. ▼



Trucks

and Save Manpower . . .

TONS of newsprint—in the biggest units your presses will take—become mere pounds when picked up, manipulated and high-tiered with *one-man* Elwell-Parker Roll-Handling Trucks.

Newsprint in a smooth, continuous flow. Elwell-Parkers take incoming rolls from boxcar or motor truck—keep your conveyor systems continuously supplied, or deliver rolls directly to paper storage or reel room.

One man and one Elwell-Parker—with safety. With the Elwell-Parker one man picks up the heaviest rolls—rotates them 90° to either horizontal or vertical position—speeds away with load. No fuss, no strain, no wrenched muscles, no wasted time—no damage.

High-tier in warehouse. Literally within seconds the load arrives at warehouse or storage. The first rolls usually are set vertically on the floor—then the Elwell-Parker high-tiers more rolls on top until the space is crammed.

Stop waste of newsprint. Careful handling by Elwell-Parkers prevents bruising caused by dropping, bumping or tilting—reduces loss caused by rough handling by ordinary methods.

Whatever the size and volume of *your* operations, you will find an Elwell-Parker Paper-Handling System one of the best investments you can make. Investigate today.

The Elwell-Parker Electric Company, 4517 St. Clair Avenue, Cleveland 14, Ohio.

Watch for the E-P Film "Handled with Care"

A graphic motion-picture record o Elwell-Parkers on every phase of newsprint roll-handling—at the mill, on inbound boxcars and motor trucks and in actual newspaper publishing projects at various points.

Many valuable ideas in this picture. The Elwell-Parker Man will be pleased to run it for you.

The E-P Man—Your Paper Transportation Advisor

Your local Elwell-Parker Field Engineer is a trained, qualified consultant on Paper Transportation at low cost. He can help you to organize Material-Handling Systems to move your loads without waste—in volume—with speed—with safety.

Appoint the E-P Man *your* Paper Transportation Advisor. He is as close to you as your telephone.

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Buffalo.....GR 7664	Ft. Worth.....4-6184	Milwaukee...MA 7817	St. Louis.....LA 4545
Charlotte.....5026	Greenville..... 534	Minneapolis...GE 3247	San Antonio....TR 3653
Chicago.....SUP 7420	Indianapolis....LI 3131	Montreal.....HA 7191	San Francisco...GA 1827
Cincinnati....MA 0650	Jacksonville....5-1384	New York..COR 7-0797	Seattle.....EL 5722
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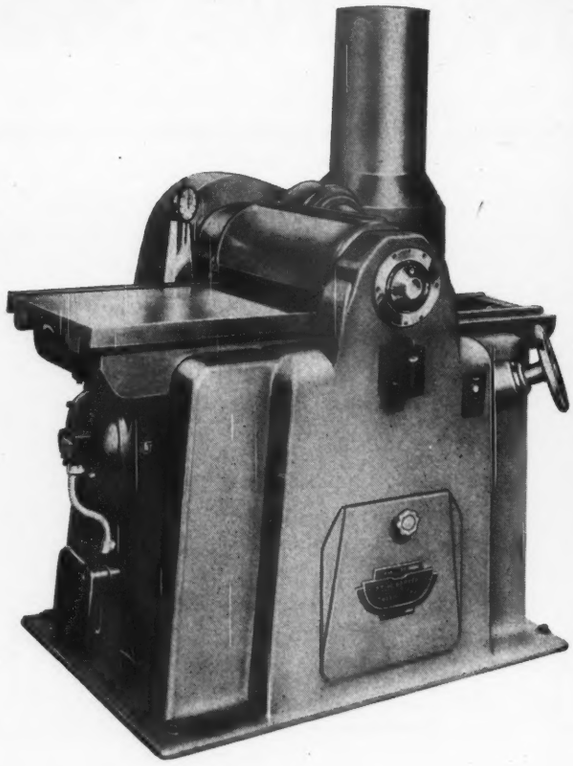
POWER INDUSTRIAL TRUCKS

★ PLAN NOW *to install*

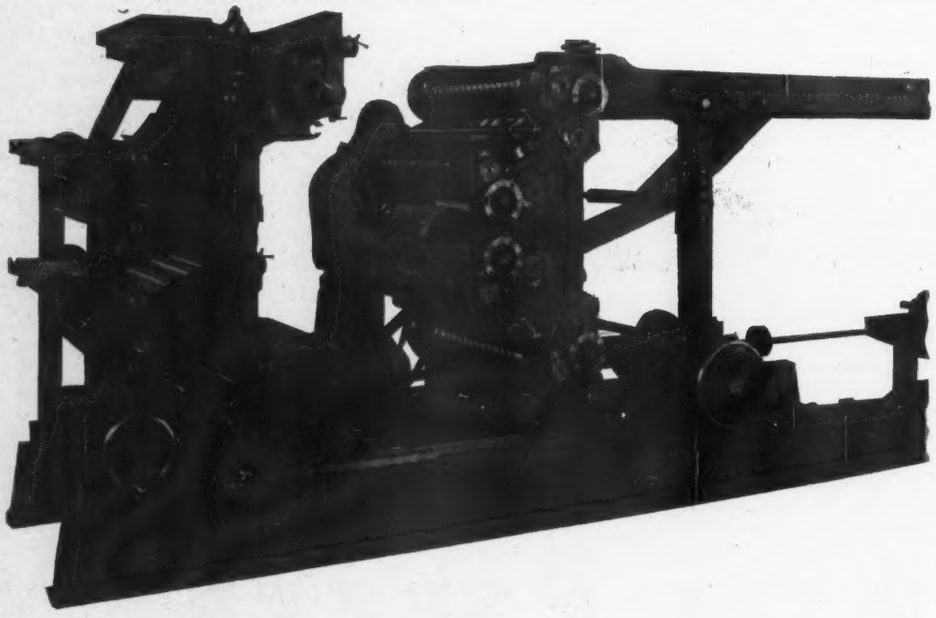
THIS EQUIPMENT WHEN AVAILABLE

The Barker Rotary Shaver

The Barker Rotary Shaver for heavy-duty precision plate shaving work will be available after the war, but right now is the time to investigate this fine equipment. The machine will shave from type high to 16 gauge and will handle any plate from 2″ x 2″ to 18″ x 24″. Micrometer gauge control; hand-wheel adjustment for cut to one thousandths of an inch. The Barker Rotary Shaver has five "V" driving belts with automatic controlled tension. There are no complicated clutches. Cutters are easily removed for grinding.



The Hess & Barker 4 Color Press



Here's a four-color press having many unique features. This press makes possible highly efficient results in publication, folder, bulletin and direct mail printing. Prints one to four colors; 600 feet per minute; length of print per revolution, 22″ to 29″. Unusual hydraulic rewind maintains hairline register. Space does not permit our giving you complete description of this press. Write today for complete information.

HESS & BARKER

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ARMY E NAVY

IS IT ALWAYS WASH-UP TIME?

When distribution is spotty and the form becomes dirty for no apparent reason, it is time to check your rollers.

When you have to wash-up after a few hundred impressions to get good, clean work, look to your rollers.

Over-age, over-used, or out-of-season rollers—regardless of appearance—can take the profits from your job and delay delivery. They can spoil paper and cause dissatisfied customers. Unnecessary press stoppage and needless wash-up time is costly.

It is good business to replace your rollers periodically and seasonally—or at the first indication of poor distribution that has no traceable cause.

When you order Bingham Rollers, made in one of the 16 Bingham factories, you know that they are manufactured to fit the temperature and conditions of your locality. Feel free to consult your Bingham representative on any roller problem.

SAM'L BINGHAM'S SON MFG. CO.

Roller Makers Since 1847

Manufacturers of Printers' and Litho-Offset Rollers

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Atlanta 3	Des Moines 2	Indianapolis 2	Minneapolis 15	Pittsburgh 3
Cleveland 14	Detroit 10	Kalamazoo 12	Nashville 3	St. Louis 2
Dallas 1	Houston 6	Kansas City 6	Oklahoma City 6	Springfield, O.

He is your Herrick Production Engineer. It is his job to know inks and ink specifications . . . to analyze pressroom conditions, grades of newsprint and publishers' problems of getting good printing from the first edition to the final. His thoroughly experienced counsel costs you nothing and can be the means of introducing you to inks specially made to fit your plant operations.

"Custom-made" inks are the particular field in which William C. Herrick Ink Co. has specialized during its entire business life. Built to specifications, all Herrick products provide dependable density in shipment after shipment. With Herrick inks, blacks keep printing deep and solid, halftones keep printing sharp and clean, readers keep getting the kind of better-looking newspaper they enjoy.

Pressroom economy is another important part of the picture when Herrick Inks are used. Because density is uniform, coverage is uniform and press readjustments are made unnecessary every time a new ink shipment is made.

Ask the Herrick Production Engineer about this and other advantages. Write us when it's convenient for you to see him. When he calls, there is no obligation.

WILLIAM C. HERRICK INK CO., INC.

OFFICE & PLANT

EAST RUTHERFORD • NEW JERSEY

HERRICK Inks

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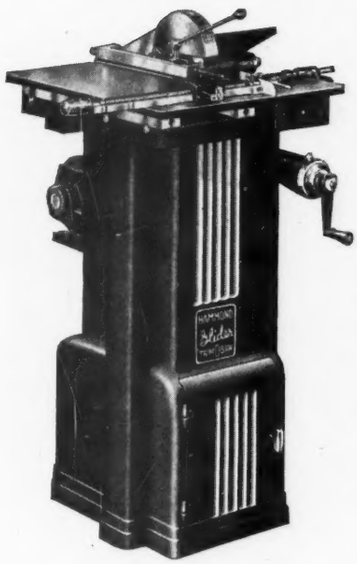

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FASTEST AND FINEST SAW AND FLAT CASTER EVER BUILT—ASK ANY USER

EASYKASTER "8"

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Hammond Machinery Builders INC.

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EASTERN BRANCH 71 W. 23rd STREET, NEW YORK CITY

Eliminate Them *by installing* BLACK & WHITE Contrast Service

Yes, you can figure it out for yourself. Errors made on line-casting machines cost you more machine time and manpower than is appearing on your time sheets.

Errors create a chain of circumstances that seriously affect production and costs. For example: after an error is committed, it must be found and reset; then comes the possibility of making errors in setting correction lines. Time is consumed by a floor man resulting in more delay in casting corrected plates. These are but a few reasons why you should install Black & White Contrast Service.

Black & White makes lines of Linotype and Intertype matrices in the assembly readable at a glance. As a result, the operator can "see what he sets" and correct typographical errors before "sending in" his lines. Let us show you case histories of actual savings effected in representative plants.

FOR VICTORY BUY UNITED STATES WAR BONDS AND STAMPS

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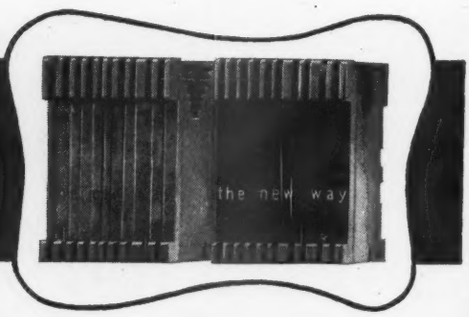


ANPA Mechanical Conference Program Hotel Statler, Cleveland, Ohio

Monday, June 12, 10 a.m.,

Euclid Room

Opening Session

A. H. Burns, New York *Herald Tribune*, Chairman
Address of Welcome—Frank J. Lausche, Mayor of Cleveland
Address—Linwood I. Noyes, President, ANPA
Address, David B. Fell, Printing Machinery Section, Printing and Publishing Division, WPB. Introduction by Leon A. Link
Applications of Electronics to Printing —General Electric Co.

Monday, June 12, 2 p.m.

Euclid Room

Composing Room Session

John A. Burke, Gannett Newspapers, Chairman
Metals, Materials, and Processes Affecting Future Typesetting Machines
H. R. Freund, Chief Engineer, Intertype Corporation
Meeting the Maintenance Problem (Slides)
Harry L. Gage, Vice President, Mergenthaler Linotype Co.
Maintaining the Supplies Inventory
B. F. Garrity, Mechanical Superintendent, Hartford (Conn.) *Times*

Monday, June 12, 8 p.m.,

G. E. Auditorium, Nela Park

Address on Lighting
Representative of General Electric Co.
Inspection of Exhibits

Tuesday, June 13, 9:30 a.m.,

Euclid Room

Stereotype Session

Leslie J. Griner, Mechanical Superintendent, Chicago *Sun*, Chairman
Mat Shrinkage
Victor E. Fishburn, Vice President, Burgess Cellulose Co.
A Stereotyper's Thoughts on Postwar Developments
George H. Fuller, Stereo Superintendent, Cleveland *Press*
Stereotyping Today and As I Believe It Will Be Tomorrow
Joseph D. Goggin, District Manager, The Morley Co.
Topics

Tuesday, June 12, 2 p.m.,

Euclid Room

Pressroom Session

A. H. Burns, Mechanical Superintendent, New York *Herald Tribune*, Chairman
Motion Picture Films of Paper Handling Operations
C. H. Ruth, Superintendent, Washington (D.C.) *Star*
C. B. Cook, Elwell-Parker Electric Co.
Topics:
30 lb. Newsprint
Use of Chrome Plating to Prolong Life of Parts

Tuesday, June 13, 8:15 p.m.,

Euclid Room

Mailroom Session

T. A. Corcoran, Louisville (Ky.) *Courier-Journal*, Chairman
Mailroom Layout
H. M. Jampol
Topics

Wednesday, June 14, 9:30 a.m.,

Euclid Room

Engraving, Art and Photography Session

Maurice A. Hagan, Engraving Supt., Philadelphia *Inquirer*, Chairman
What Should We Expect from a Color Print? (Slides)
Harris B. Tuttle, Eastman Kodak Co.
Making Color Plates for Newspaper Printing
Jack Kelt, Mallinckrodt Chemical Works
Past, Present and Future of Newspaper Art
Port Saylor, Art Director, Cleveland *Press*
The Photocast Process
C. W. Bennett, Rochester, New York
Experience with the Kromolite Process
Stanley Meyers, Art Director, Philadelphia *Bulletin*
Experience with the Fluorographic Process
Speaker to be selected

Wednesday, June 14, 2 p.m.,

Euclid Room

Advertising and Color Printing Session

John W. Park, Production Mgr., Chicago *Tribune*, Chairman
"Bac-Etch" Plates for National Advertising (Slides)
Harry Gibson, Joseph J. Reilly Co.
Discussion of a Standard Printing Plate for Newspaper Advertising
Topics

Will Regional Meetings Stunt the ANPA Mechanical Conference?

WE have been asked this question upon a number of occasions recently. At first thought, one might be inclined to believe the regional conferences eventually will detract from the importance of the daddy mechanical meeting of them all. Perhaps the question is asked because of the gradual organization of the eleven regional conferences in the last decade or so. A little analysis of the subject seems to provide a decided answer.

Apparently, these regional conferences have been organized because one annual country-wide mechanical conference could not fully satisfy the technical needs of newspaper mechanical executives. Considering the ANPA meeting as being country-wide in scope, it doesn't now appear that it could cater to large, medium and smaller paper executives 100%.

Discussion about newspaper technique, processes and production, is just too great a subject to be satisfactorily disposed of in one annual three-day meeting. The fact that the ANPA Conferences have not satisfied all newspaper executives is no reflection on the management of that conference in any way.

Most newspaper mechanical executives have always liked to "talk shop" in informal groups. These little get-together groups perhaps don't discuss their problems in exactly scientific terms, but the members of these groups do understand each other. There seems to be something of a soul-satisfying nature about them.

A point to be considered is that labor matters are strictly taboo at the ANPA Conference as well as the regional meetings. Since practically all executives like to compare notes about labor matters and the handling of labor problems, it is only

Regional Newspaper Mechanical Conferences. Printed here (subject to correction) is a list of regional newspaper mechanical conferences with territory covered by each. Taken collectively, these conferences seem to cover every state in the Union with the exception of Delaware.

Great Lakes Mechanical Conference—Indiana, Michigan, Ohio.

Illinois Mechanical Conference—State of Illinois.

Iowa Mechanical Conference—Iowa, Colorado, Kansas, Missouri, Nebraska, Wyoming.

New England Mechanical Conference—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

New Jersey Mechanical Conference—State of New Jersey.

New York Mechanical Conference—State of New York.

Northwest Mechanical Conference—Minnesota, Montana, North Dakota, South Dakota and Wisconsin.

Pacific Mechanical Conference—Arizona, California, Idaho, Nevada, New Mexico, Oregon, Utah, Washington.

Pennsylvania Mechanical Conference—State of Pennsylvania.

SNPA—Eastern Division: Alabama, Georgia, Florida, Kentucky, Louisiana (east of Mississippi river), Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia.

SNPA—Western Division: Arkansas, Louisiana (west of Mississippi river), Oklahoma, Texas.

natural that they do so under informal circumstances. At the closely-knit regional meetings the offside discussions are numerous, because of their regional nature.

Another thought with respect to the regional conferences is perhaps most important of all. Since the conference areas are limited, the executives from any given area have a mutuality of intimate geographical interest which cannot be provided by one overall annual three-day get-together.

Someone has suggested that perhaps there is a wide gulf between the large-paper executive and the executive from the little paper. If such a gulf exists, we feel it must rest in the imagination of the smaller-paper executive. We believe this to be true because the large-paper executive's problems are identical to the problems of the small-paper executive. There's this difference only—the large-paper executive has more of them by reason of the fact that he supervises a greater amount of production.

It is true, however, there may be some timidity on the part of the small-paper executive toward the executive from the large plant. We feel this attitude should not exist because both can learn one from another. We know of several instances where large-paper executives have derived great benefit from the little fellow's ideas, credit for which has been extended.

Now, if the regional conferences are essential, as they seem to be to numberless newspaper executives throughout the country, the question arises as to the future status of the ANPA Mechanical Conference.

Our viewpoint is that the ANPA Mechanical Conference is destined to go on to greater things, dropping the idea of informal technical discussions by mechanical departments at the annual meetings. They will thus waive to the regional conferences any attempt to get together a mixture of large, medium and small paper executives for mutual technical discussion.

In mentioning the "greater things" with which the ANPA Conference will be concerned in the future, please take a look at this year's program. All clinics have been dispensed with. The program is made up of speakers, all of whom are recognized as specialists in their respective fields. The program should provide invaluable assistance to executives as well as giving them many ideas about future technological progress in his industry. The mechanics of the program are such that executives from big, medium and little size papers can profit.

The proposed adventure into cooperative research initiated at the New York ANPA Convention in April by the appointment of a Research Committee, is another indication of the future destiny of the ANPA Mechanical Department. We pay our respects to this proposal in an accompanying article.

Northwest Conference Date Has Been Set Back

At an executive committee meeting held recently, it was decided that the next Northwest Newspaper Mechanical Conference will be held during mid-February, 1945. Reason for postponing the previously selected summer date was because of the nearness of the Iowa and the ANPA meeting dates. Al Rosene, Mechanical Superintendent of the St. Paul *Dispatch* and *Pioneer Press*, is president. Vernon G. Eck, Instructor at William Hood Dunwoody Industrial Institute, is secretary. Mr. Eck's address is 3735—48th Ave. South, Minneapolis 6, Minn.

New Jersey Mechanical Conference

It has been decided to hold the 1944 New Jersey Mechanical Conference as a one-day session on Saturday, November 18, at Robert Treat Hotel in Newark, N. J. The conference will start at 10 a.m., and a luncheon will follow at noon. The morning and afternoon sessions will be devoted to mechanical problems of the composing, stereotype and pressroom departments.

Those attending a meeting of the mechanical committee held in Newark on May 8, were: President of the Mechanical Division George W. Holloway, who is mechanical superintendent of the Elizabeth *Journal*; R. E. Lent, business manager of the Jersey *Journal*; Patrick Feeney, President of the NJPA and who is also advertising manager of the Newark *Evening News*; Frank Frisch, mechanical superintendent of the Plainfield *Courier News*; John Arnold, mechanical superintendent, Newark *News*; Frank Hutchinson, executive secretary, NJPA. The committee made final arrangements for the November conference.

The ANPA Mechanical Department—
A Thermostat or a Thermometer?

(AN EDITORIAL)

IN speculating upon the joint future position of the ANPA Mechanical Committee and the Mechanical Department in relation to the newspaper printing industry, there now seems to be a clear-cut path which ought to be followed. With the practically complete organization of regional conference territories it looks like the Department should relinquish part of its original activities at the annual conferences, particularly the holding of what have been intended to be mutual discussion clinics. The reason is that it is impossible for a considerable cross-section of mechanical executives from large, medium and small papers to get together for three days annually to cover every phase of mechanical operation to the satisfaction of all. The technical phases of the industry just can't be covered satisfactorily in that length of time.

For some time, the ANPA Mechanical Department has been gradually approaching its natural field of endeavor—that of covering the technical phases of the industry from a scientific point of view. This year's program is an example of how the ANPA can best serve the interests of its naturally nation-wide membership at the annual meetings. In reading over the list of speakers and their subjects, one must conclude that this year's program is in the heavyweight class.

Added to this, the proposed entrance into organized cooperative research makes it appear that the ANPA Mechanical Committee's future role is well defined. In relinquishing to the regional groups the "shop talk" clinics, the ANPA can go on to greater achievement for the general technological advancement of the industry.

In the field of research, the ANPA should stand alone. The regional groups have neither the desire nor the finances to conduct cooperative research of which the industry is badly in need. The ANPA, on the other hand, has the means and the membership to amply finance a serious cooperative research program. Research costs money—lots of it—but if that cost is distributed equitably over the entire ANPA membership, the financial burden won't be onerous to any one firm.

In their individual enthusiasm for ANPA cooperative research, we hope sincerely that mechanical executives won't expect miraculous results immediately. Scientific research is a long range objective. Investigation of only one objective may take months to complete. Even then there isn't any guarantee that a problem may be solved.

The personnel of the Research Committee which was recently appointed by Chairman Burns of the ANPA Mechanical Committee looks like a happy selection. These men are Chairman John L. Blake of Scripps-Howard; John Park, Production Manager of the Chicago *Tribune*; and John A. Burke, Production Manager of the Gannett Newspapers. Particularly, both Messrs. Park and Burke have been connected with private research in their own organizations for years.

At the April ANPA Convention, Mr. Burke spoke briefly upon the subject of cooperative research. He stated that during the period in which research had been conducted by the Gannett Group of papers that many ideas have been developed with the help of the mechanical men in the Gannett organization. These developments have contributed greatly in improving the appearance and operation of the Gannett Newspapers. He continued:

> Knowing the results obtained by research in our organization, I believe greater improvements could be developed and the newspaper industry as a whole would profit from cooperative research. I hope that some plan will eventually be worked out by the officers of the ANPA to raise and appropriate sufficient money to conduct cooperative research.

After a program of cooperative research has been definitely determined upon we hope a bibliography will be created for each subject to be investigated to avoid duplication of previous effort. If it is known exactly what has been done in past years by predecessors much time and effort will be saved. For this purpose, the ANPA Mechanical Department *Bulletins* will form a splendid nucleus, plus the wealth of material which must already be in existence in Manager Wines' files, technical books, trade publications and the libraries of equipment and supplies manufacturers.

At the moment, we don't know whether the manufacturers of equipment and supplies will be invited to participate in the proposed ANPA cooperative research program. We believe it would be advantageous to have them do so. Irrespective of the manufacturers' participation in the proposed cooperative program or failing that, the continuance of their own private research and investigational work, the industry will pay for it anyhow because it is a fair charge upon the industry.

Floor Plan Equipment Layout and Work Flow Diagram in Composing Room of *The News and Observer*, Raleigh, N. C.

THE News and Observer composing room equipment and work flow diagram shown here is an interesting one, since it is representative of what intelligent planning can be made to do for a medium size newspaper. The planning was done under the supervision of Ellis Speer, composing room foreman. In discussing the diagram with *Printing Equipment Engineer*, Mr. Speer talked interestingly about his first experience with an L-shaped composing room.

It was found necessary some time ago to expand the facilities of the entire building. Mr. Speer was informed that *The News and Observer* intended purchasing the rear end of the lot adjoining the present building and an L-shaped building would be erected to house all of the mechanical departments, because other ground area was not available. At first Mr. Speer had doubts about the flexibility and efficiency of the proposed L-shaped building but went to work to make the composing room equipment fit into the arbitrary space granted for the purpose. He now says he is glad the building was erected in L-shape. The layout has worked so smoothly that it has not been found necessary to change the location of a single piece of equipment that was installed when the new building was occupied. In addition, new equipment purchased during the past five years has been placed "in line" without changing equipment already in the place. There still is room for six more line-composing machines.

We imagine the best method of telling the story about this composing room would be to direct the reader to the layout diagram key directly below together with comments made by Mr. Speer with respect to certain of the keyed items in relation to work flow.

The main part of the composing room floor consists of hard maple strips laid herringbone pattern and cemented to the concrete floor. It has been in use for more than five years without the necessity for spending one cent for repairs. It is considered by the men as one of the most comfortable floors upon which they have ever worked.

No posts or supporting columns exist to interfere with the placing of equipment. The floor was built to carry 250 lbs. dead weight per square foot.

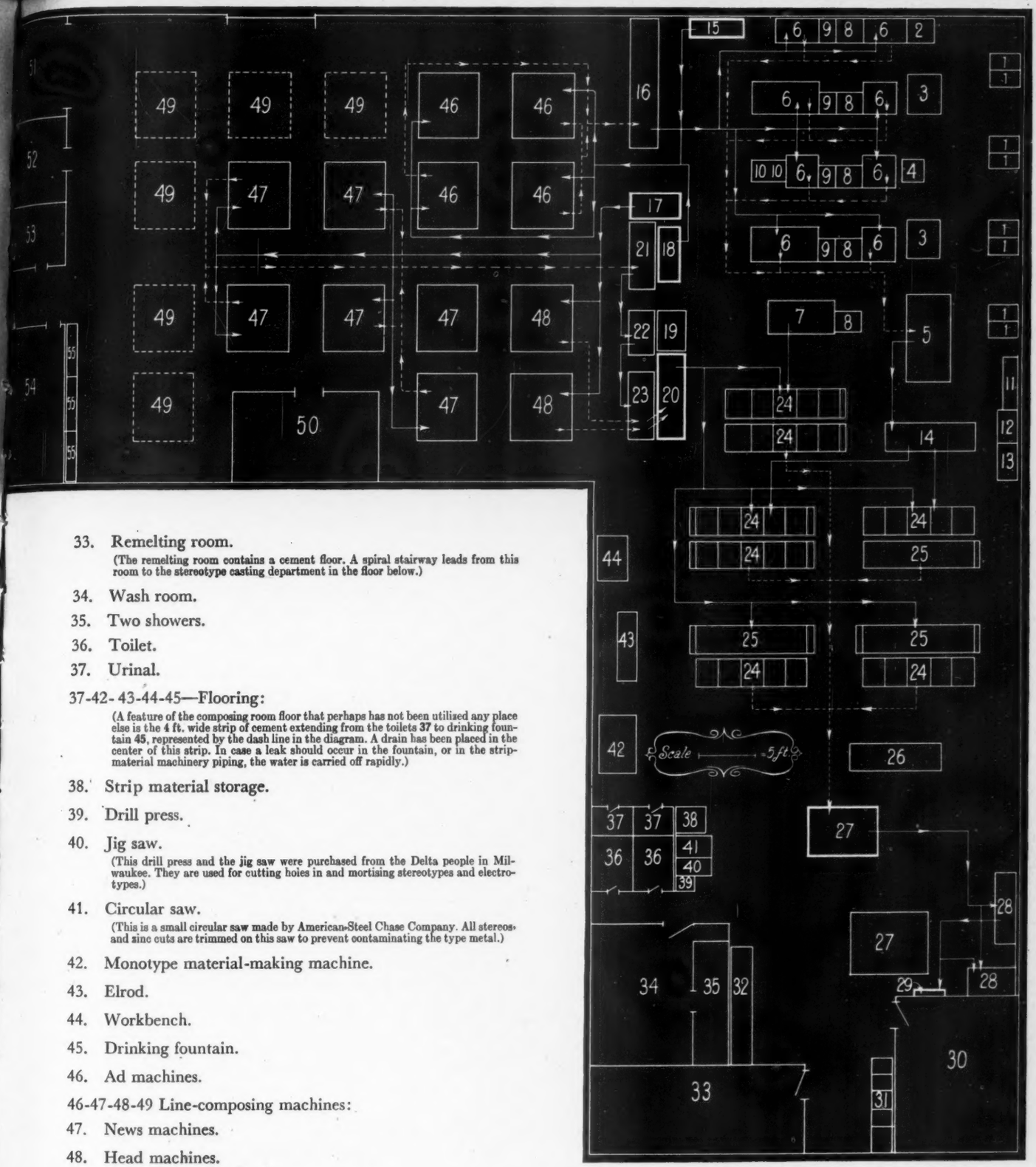
Because of the elimination of overhead banks and the like, a clear and unobstructed view over the entire room may be had.

In every location where men must read type, particularly over the makeup department, 28 in. by 36 in. Benjamin Skylight fixtures were installed. Each fixture provides about 50 footcandles. For general illumination, concealed lighting fixtures of about 15 footcandles capacity have been provided.

FLOOR PLAN OF COMPOSING ROOM KEY FOR LAYOUT

It will be noticed that the key numbers in the diagram do not start with copy when received from the editorial and advertising departments. The general observation should be made here that all aisles where men must work have a minimum width of 3½ ft.

1. Standard 20-case Ludlow matrix cabinet.
2. Large 20-case Ludlow matrix cabinet.
   (All 60 pt., 72 pt. and 90 pt. Ludlow matrices are carried in this one cabinet.)
3. Ludlow caster.
4. Rouse mitering machine.
   (The mitering machine is mounted on a cabinet which contains all sizes of rules and most of the fancy borders in stripe.)
5. Vandercook page proof press.
6. Individual stands for ad compositors.
   (Materials have been provided for the ad compositors so that they do not have to leave their stands except when they pick up ad composition from the ad dump **16**, or to set their Ludlow lines. Mr. Speer states that most Ludlow-equipped plants have one or two men set all Ludlow display lines, but he requires them to set their own matter on the Ludlow. He admits "We probably lose a little time under this system but we have the satisfaction of knowing that every man in the ad room is a competent printer. The ad writers in Raleigh do not specify type sizes in their copy, but do occasionally specify the type face wanted. Therefore, the hand compositor is given more or less leeway in his work.")
   (At the time of moving into the new composing room, four 3 ft. individual cabinets for ad compositors were purchased. The new cabinets are as efficient as the old 4 ft. and 6 ft. cabinets and take up less floor space. Each stand is fitted with racks containing leads and slugs cut to length. In the type cases beneath, foundry type ranging from 60 pt. to 120 pt. is carried. Foundry type under 60 pt. is not carried.)
7. Bank for assembly of hand-set and machine-set heads.
8. Miller saw-trimmer.
9. Strip material cabinets.
   (These are small made-to-order cabinets, low enough to clear the extension gauges on the Miller saw-trimmers. Cabinets are filled with strip leads, slugs and borders.)
10. Advertisers' signature cut cabinet.
    (These are old-style Ludlow matrix cabinets holding 14 cases that pull from each side. The original partitions were ripped out, the resultant trays making very good receptacles to keep advertisers' signature cuts.)
11. Cut cabinet.
12. Stand for standing and repeat ads.
13. Receiving bank for stereotype casts. Bins underneath for storage of empty ad galleys.
    (The stereotype department delivers all flat casts to the top of this stand. Underneath are compartments. The large galleys fit accurately which prevents them becoming bent.)
14. Table for live ads.
    (All daily advertisements are placed on top of this table for pickup by makeup men. Underneath are labeled shelves for advertisements running each day of the week.)
15. Mark-up table.
16. Machine ad dump. Bins underneath for storage of strip material.
17. Copy-cutter's desk.
18. Mark-up desk.
19. Stand for news cuts and "if needed" news type.
20. Head assembly table.
21. News dump.
22. Vandercook small electric proof press.
23. News correcting table.
24. Page form trucks.
25. Ten-foot make-up table.
    (Aisles in the makeup department (24-25) have a minimum width of 5 ft. clearance. This space enables a man to pull a form truck from the line and yet not interfere with another man who may be making up a form immediately behind.
    (In this department can be made up 50 pages in less than 900 sq. ft. floor space. The makeup men can easily reach anything in the way of material that goes into a form without doing any walking except to go from the forms **24-25** to the assembly table **14** for their type. One-way traffic for form trucks to and from the roller molding machine **27** is maintained. All trucks move to the molding machine via the center or right-hand aisle near the wall. After molding they are returned via the aisle alongside the Monotype department **42-43-44** and drinking fountain **45**. However, the middle aisle is seldom used for form delivery to the roller molding machine except when an edition is to consist of 30 or more pages. Dead slug bins are attached to the makeup tables **25** and at the ends of the makeup frames **24**.
    (The three 10 ft. makeup tables have lowered overhead banks. Under the cast iron work top of one of the tables in a space about 10 in. high and extending the length of the table are partitioned bins for cast iron base ½ in., 1 in., 3 in., and 4 in. deep by 1, 2 and 3 col. wide.
    (Directly underneath the base compartments are shelves used to store advertisements awaiting insertion orders or special editions that were issued frequently before Pearl Harbor.
    (The second table is fitted with a slide section and labeled galley racks for storage of repeat 1 and 2 col. advertisements.
    (The third table is fitted with galley racks in which are stored daily features set ahead of day of insertion, "Any Day" type and editorial features used in the daily paper.)
26. Receiving table for Sunday ads and news feature matter.
    (This is called the "Sunday Table". All reading matter and advertisements set during the week are stored on or in this table, which is fitted with steel top and shelves and galley racks underneath. Before paper conservation became so stringent, a section of the Sunday paper was made up on Friday night. By working in the trucks facing this table, the Sunday makeup man did not interfere with the men getting out Saturday's paper.)
27. Stereo mat rolling machine.
28. Stereotyper's mat backing-out table.
29. Chute for dropping mats to stereotype room.
30. Locker room.
31. Filing cabinets for small ad mats.
    (These are legal size steel filing cabinets such as are used in all business offices. These are used for filing local and foreign mats in alphabetically tabbed folders just as letters or correspondence are filed.)
32. Rack for storage of used page mats.
    (In this rack are stored used page stereotype mats for at least one year.)



33. Remelting room.
(The remelting room contains a cement floor. A spiral stairway leads from this room to the stereotype casting department in the floor below.)

34. Wash room.

35. Two showers.

36. Toilet.

37. Urinal.

37-42-43-44-45—Flooring:
(A feature of the composing room floor that perhaps has not been utilized any place else is the 4 ft. wide strip of cement extending from the toilets 37 to drinking fountain 45, represented by the dash line in the diagram. A drain has been placed in the center of this strip. In case a leak should occur in the fountain, or in the strip-material machinery piping, the water is carried off rapidly.)

38. Strip material storage.

39. Drill press.

40. Jig saw.
(This drill press and the jig saw were purchased from the Delta people in Milwaukee. They are used for cutting holes in and mortising stereotypes and electrotypes.)

41. Circular saw.
(This is a small circular saw made by American-Steel Chase Company. All stereos and zinc cuts are trimmed on this saw to prevent contaminating the type metal.)

42. Monotype material-making machine.

43. Elrod.

44. Workbench.

45. Drinking fountain.

46. Ad machines.

46-47-48-49 Line-composing machines:

47. News machines.

48. Head machines.

49. Space reserved for additional machines.
(Because the elevator 51 had to be placed in the corner as indicated in the diagram, a wide alley had to be provided between machines 46 and spaces allotted for future machines 49 and the outside wall to permit bringing in new equipment. For future needs and in case it is necessary, five machines instead of four could be placed in each row. Body type can be set on every machine in the plant.)

50. Machinist's room.
(The machinist's room is outfitted with buffing wheels, grinder, 8 ft. heavy work bench and a parts cabinet. The parts cabinet extends the width of the room and contains 70 drawers for parts, supplies, tools, catalogs and literature. Seven of the drawers are about 16 in. wide, 6 in. deep and 22 in. long. Sixty-three drawers are about 7 in. wide, 6 in. deep and 22 in. long. This cabinet was made by N. G. Blockard, one of the machinists. The workbench was made by Mr. Speer.)

51. Elevator.
(The placing of the elevator at upper left corner of the room was an arbitrary matter. Mr. Speer states he would have preferred having it in another location.)

52. Storage room.
(The storage room is a rather unusual one, specially equipped for the purpose. The floor area is 7 ft., 9 in. by 9 ft. The shelves about 18 in. apart, run from floor to ceiling. There is a heavy ladder on a trolley from which the shelves can be reached on either side. Each shelf if numbered and every article put into the stock room is indexed.)

53. Foreman's office.

54. Proof room.
(The proof room is located quite a distance from the news correcting dump 23 and the live ad table 14. Mr. Speer's original plan called for a belt carrier from the dumps to the proof room, but the carrier has not as yet been installed because of the war emergency.)

55. Storage for dead ad and news copy.

An Ideal Machinist's Department — Systematically Operated by an Orderly Machinist

WITH the connivance of Production Manager Francis M. Britton, of the Nashua (N.H.) *Telegraph*, Machinist Charles Davis is a contented chap. The reason is that Davis has been supplied with a machine room which meets his ideal as an efficiently equipped room which many machinists have dreamed about but which have not been provided in many cases.

Production Manager Britton, in working on the theory that a happy machinist is a better one, commenting upon the room stated: "we have put into the room everything that a machinist would want and which wartime conditions permit."

The *Telegraph* composing machine equipment consists of six Intertypes and Linotypes, one Ludlow and one Elrod machine. While the room may seem to have its limitations as to size when compared to larger plants, yet Davis' room is ample for his purposes. The room measures 16 ft. by 20 ft. floor space. The equipment is arranged wall-wise so as to leave an open space in the center part of the room to permit constructing things or to do machine work where floor space is required. There is plenty of natural daylight from the windows which are provided with venetian blinds. The walls are painted white and fluorescent fixtures provide artificial illumination when required. One of the important pieces of equipment in the room is a corner sink. Mr. Britton commented that when the sink was under consideration as a necessary part of the room, some members of the *Telegraph* organization doubted its utility. Since installation of the sink was agreed upon, he is happy to relate everyone feels the idea is a good one.

Perhaps the best way to describe the equipment contained within the room would be to refer separately to each of the four illustrations shown on the opposite page, so we'll take them up one by one, after which further description will be devoted to important features not shown in the photos.

Fig. 1 Here is shown part of the bench equipment. Mounted on the bench at extreme left is a four-bank revolving stand fitted with screw-top glass jars. These jars contain a considerable variety of screws, nuts, bolts and washers—are instantly visible so that any particular kind of size can be identified easily. Next is shown a small welding outfit. At the immediate right side of this is shown a Tesch saw-filing machine. In front of the window casing is a bench power-driven drill press with complementary twist drills and other tools. The ever necessary bench grinder is mounted on the bench at extreme right. Under the bench (at right) are hung three sizes of hand drills together with an electric drill. The box underneath the bench is fitted with casters so it can be rolled out for inspection of contents. In this box are thrown small pieces of discarded metal and parts which Mr. Davis thinks might be useful for making "things." Mr. Britton states all machinists think a receptacle of this kind is a necessity—and he agrees especially since Mr. Davis' first move is to consult the box when Britton asks him to make something.

Fig. 2 Ranged along the same wall view as in Fig. 1, is the 3 ft. (with 5 in. swing) South Bend bench lathe. Standing before the lathe is Machinist Charles Davis. Mounted on the wall is a cabinet for various lathe parts and tools. Referring again to the sink which is shown in the corner, Mr. Britton said: "Many times Mr. Davis might be engaged in work which causes his hands to get dirty or greasy and a hurry call will come from a machine operator. Instead of going to the other end of the composing room to wash up, or more simply, to wipe his hands on a bunch of waste, he can readily clean them at the sink in minimum time. The sink has been found useful in cleaning operations for machine parts. In addition, operators appreciate cleaner keyboard keybuttons and operating handles. At right is shown part of Elrod strip-casting machine.

Fig. 3 In this view are shown a section of stock shelves and work bench. The bench, upon which small parts and matrices receive attention, is made of hardwood with oiled work surface. Another section of the bench (not shown) is covered with ⅛ in. boiler plate for heavier work. Mounted between the windows is a wall cabinet with swinging lid for tools. At left center is a typewriter upon which Mr. Davis makes out parts and supplies orders. Under the wall cabinet is a Curle matrix anvil. At right of the cabinet on the bench is a power head which is used for buffing matrices and machine parts. The small drawers under the central section of the bench are used for storing electric fuses and other small parts and supplies. At extreme right is shown part of an electrical testing board for testing fuses, bulbs, batteries, heating elements and the like. The shelves at upper left are used for storing fluorescent lighting tubes and other stock materials. Under the bench at the left is a cabinet where motors and larger machine parts are kept.

Fig. 4 Mr. Britton is proud of the storage and identification system for filing the smaller spare parts for Intertypes, Linotypes, Ludlow, Elrod and the saws. The container for the parts consists of a five-drawer, two-tier steel cabinet. In this view, Mr. Britton is pointing with pencil to one of the envelopes in which parts are kept. All of the parts are filed in this cabinet in a systematic manner so that any one of hundreds of machine parts can be found easily by anyone who is familiar with composing room machinery.

The tough manila envelopes are 5 in. by 7 in. size. On the face of each envelope is typed the part number, name of the part, and the firm from whom the part was purchased. In the upper left-hand corner a sketch of the part has been drawn for quick identification to eliminate the necessity for hunting up the likeness of a part in a separate catalog. Under the part number is stamped the date and number of parts in the envelope on that date. When a part is removed from an envelope, the date on which a part has been removed from the envelope together with the number of parts remaining in the envelope are stamped in the proper place on the envelope.

Periodically, Mr. Davis inspects the envelopes in the cabinet. When he notices a part running low in an envelope he removes the envelope and places it with others alongside the typewriter. Requisitions are then made out when it is convenient for him to do so.

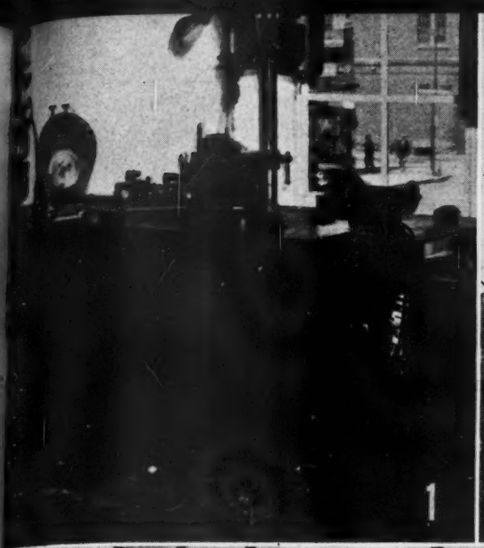
The parts envelopes are filed in the cabinet numerically according to the machine upon which they will be used ultimately. The storage is divided into the assembling, casting, driving and distributing sections. The larger parts are placed in another cabinet or below the benches are card-indexed in a file kept for that purpose. When Mr. Davis has completed making out parts and supplies orders, he takes them to Mr. Britton's desk, and if not marked rush, they are ordered on the first of each month. All supplies for the mechanical equipment in the mechanical departments are ordered in this manner. When this system was first introduced, some confusion resulted, but the departmental executives soon got the hang of the idea, so that now it is seldom necessary to order anything except during the first part of the month. Mr. Britton reports that in the past 18 months it has not been necessary to put through a rush order except in one instance.

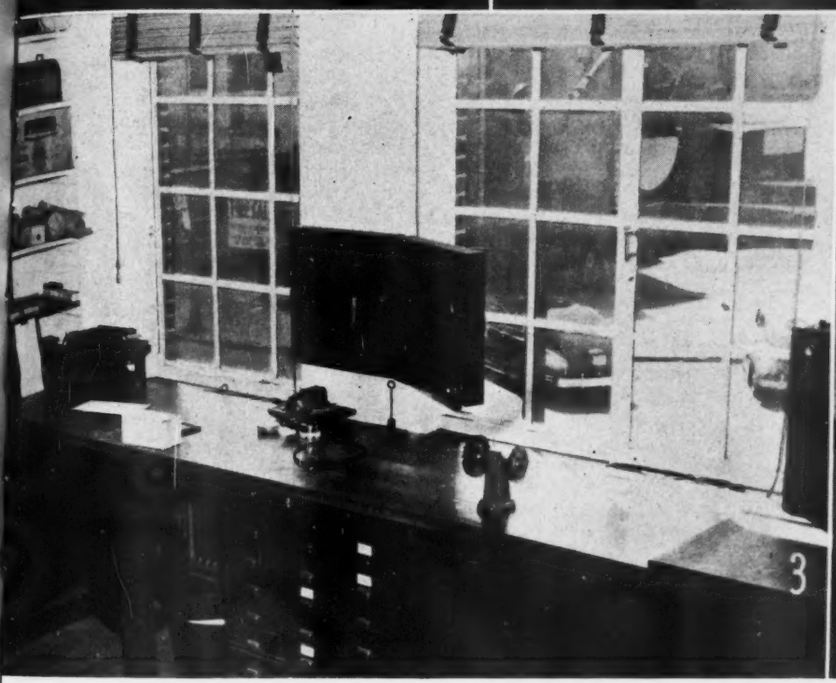
Not shown in any of these illustrations of the machinist's department is a washing tank which is used in cleaning certain motor parts, typewriters and other pieces of equipment which can be cleaned easily by dipping them into a solution.

Also kept in the room is a portable type air compressor with 150 lb. capacity to which is attached 50 ft. of hose. The hose, in the case of the *Telegraph* is sufficiently long to work with the nozzle around all of the line-casting machines without moving the compressor out of the machinist's room.

Mr. Britton explains that in a small plant like the *Telegraph* it is necessary for the machinist to function as carpenter, plumber or electrician in emergencies when the services of such craftsmen cannot be obtained in a hurry.

The machinist also operates the Elrod which has been placed in his work room where he can watch it more easily. The Elrod is not operated steadily enough to engage a full-time employe.





Great Lakes Mechanical Conference

AN organization meeting of the Great Lakes Mechanical Conference from among newspaper mechanical executives in Indiana, Michigan and Ohio who will attend the ANPA Mechanical Conference at Statler Hotel will be held at the Statler immediately following adjournment of the ANPA Pressroom Session late Tuesday afternoon, June 13. The meeting will be held in the Euclid Room.

At this time, a complete Board of officers and directors will be selected and the time for holding the first conference, together with the 1944 conference city, will be determined.

It has been proposed that two newspaper mechanical executives from each of the three states (Indiana, Michigan and Ohio) be placed on the board to assure equal representation from each state in the official family.

A temporary nucleus committee has been functioning for the past several weeks and a complete tentative program for organization is expected to be presented to the meeting.

George Fuller, stereotype superintendent of the Cleveland *Press*, has been selected as temporary chairman of the committee to initiate organization.

Among those executives who have been proposed to serve as officers and on the board, are: George Fuller for president; Lester Yeager of the Indianapolis (Ind.) *Star*, as vice president; Al Oberg, composing room superintendent of the Flint (Mich.) *Journal*, as secretary-treasurer; The following three executives have been proposed as members of the board of directors: Roy English, photo-engraving superintendent, Detroit *News*; Frank Duncan, mechanical superintendent of the Portsmouth (O.) *Times* and H. H. Parker, pressroom superintendent of the Richmond (Ind.) *Palladium-Item*.

This diagrammatic emblem represents the territory to be covered by the proposed Great Lakes Newspaper Mechanical Conference. It seems now with organization of the Great Lakes Conference that every state in the Union will have been incorporated into a regional conference. At its recent meeting, the Pacific-Southwest Mechanical Conference territory was broadened to include the eight extreme westerly states. The name of the western conference has been changed to Pacific Newspaper Mechanical Conference.

Elementary Explanation

of Processess Used in the Manufacture of Photo-Engravers' Zinc

By W. ROY MANNY*

**President, Atlantic Zinc Works, Brooklyn, N. Y.*

THIS article is explanatory of the manufacturing methods employed by the Atlantic Zinc Works in the production of photo-engravers' zinc plate. Because this article must be brief, no attempt will be made to cover the subject in complete detail. We don't believe those who read this description would be interested in a meticulous explanation describing all of the exact chemical and metallurgical control methods. As manufacturers, we only wish to give some idea of the processes used so that photo-engravers and others will have a better understanding of the manufacturers' problems in furnishing users with an unvarying product.

First, we'll tell you about the production of zinc from the ore. Strange as it may seem to the layman, most of the zinc used for engraving is distilled from the ore by a process something like that used in making whiskey. It is boiled off as a vapor and is then condensed to form molten zinc.

Before distillation, the zinc ores are specially treated to concentrate the zinc minerals by separating them from the worthless materials in the ore.

The concentrated ores are then roasted to convert the zinc minerals into zinc oxide. The roasted ore is now ready for the distillation process.

The ore is mixed usually with coal or coke in horizontal cylindrical fireclay retorts. The heating causes a chemical reaction between the zinc oxide and the coal, producing zinc. The temperature required for this reaction is above the boiling point of zinc, and therefore the zinc is produced in the form of a vapor. This vapor condenses when it reaches the "cool" (below 1700 deg. F.) part of the retort, thus forming molten zinc.

The molten zinc is collected in a fireclay container attached to the end of the retort. Each collection of metal from the same charge of ore is called a "draw". This raw zinc is also known as spelter, after being cast into slabs called pigs.

The roasted ore used in the smelting or distillation process always contains various impurities, including minerals of lead and cadmium. In the smelting process metallic lead and cadmium are formed from these minerals and are carried over with the zinc vapor.

Melting the Zinc Pigs

Fig. 1 The 80 pound zinc pigs as received from the smelter must now be melted and poured into billets of proper size suitable for rolling into sheet form. During this remelting operation greatest care must be exercised to obtain uniform composition and temperature throughout the entire batch with which the furnace is charged. In the case of the Atlantic Zinc Works, these objectives are accomplished automatically through the use of the electric induction furnace. When fully charged, the furnace carries 1000 lbs. of zinc. In the side view diagram, Fig. 1, the black area *D* represents molten zinc in the fully charged furnace. The tube *C* which is always filled with molten zinc, passes through a figure-eight of laminated iron represented in cross-section at *B* in the diagram. Around the central bar of the figure-eight a simple electric coil *A* is wound. When the current passes through this coil, it creates a magnetic field in and about the figure-eight.

This magnetic field brings about two results in the tube *C*. First, a current of 16,000 amp. is created which, due to the resistance of the molten metal in the tubes, generates heat at a constant rate; second, the magnetic field about the tube sets up electro-dynamic forces which eject the molten metal along the path *D*. The cooler metal returned to the tube results in an automatic stirring action to blend the elements present in the metal.

Fig. 2 When the melting and blending operations have been completed, the molten metal is poured directly from the furnace into molds to form rolling billets.

Rolling the Billets

Fig. 3 These billets are next annealed in ovens at a constant temperature. One purpose of this annealing operation is to equalize the temperature before rolling. If the billet is too cold when rolled, it will be hard and brittle and is likely to crack.

The first rolling is known as hot rolling. During this process, the cast pigs are reduced from approximately 2 in. thickness to ¼ in. This rough rolling improves the uniformity of distribution of the alloying metals in the zinc.

Finish Rolling

Fig. 4 After this initial rolling, the plates are reannealed before being finish-rolled, in order to equalize the physical properties of each sheet. The finish rolling of each sheet separately is a much more delicate process than the initial rolling. Many passes of the sheet through the highly polished rolls may be used in finish-rolling to reduce the thickness by only a fraction of the reduction obtained in one pass of the first or rough rolling.

Finish rolling is a process of continual checking and rechecking of metal gauge, metal temperature, roll temperature and of constant adjustment of rolling schedules to fit each set of conditions. The process of rolling engravers' zinc is so specialized as compared to rolling zinc for other uses that experience in rolling ordinary zinc is of little help in the rolling of engravers' zinc.

Plastic Acid-Resist Coating

The next operation in the manufacture of zinc photo-engraving plates, is to supply an acid-resisting coating to the back side of the sheets. This coating has none of the disadvantages of the old shellac or asphaltum backings formerly applied by hand by the engraver. Since the coating is applied by the manufacturer, the engraver is free to devote all of his time to the production of the engraved plate itself. The coating operation is followed by a carefully controlled annealing to set the zinc sheet for accurate color register.

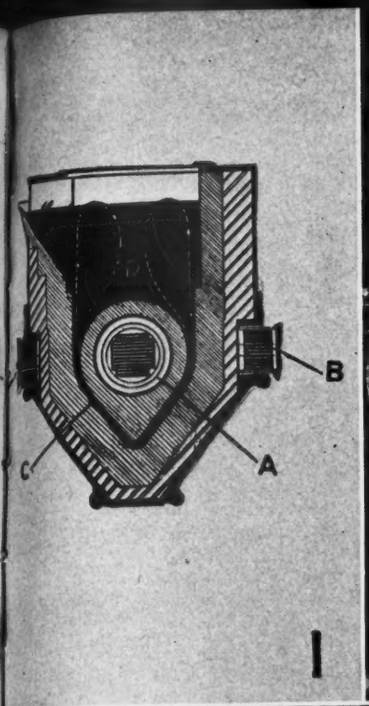
Polishing Photo-Engravers' Zinc

Fig. 5-6 Before plates are made suitable for use by the photo-engraver, they must be ground and polished, chiefly to obtain better adherence of the photographic emulsion to the metal and also to locate and remove any surface defects that may be present.

The polishing operation consists of abrading the surface until it contains a series of minute scratches, many hundreds to the inch.

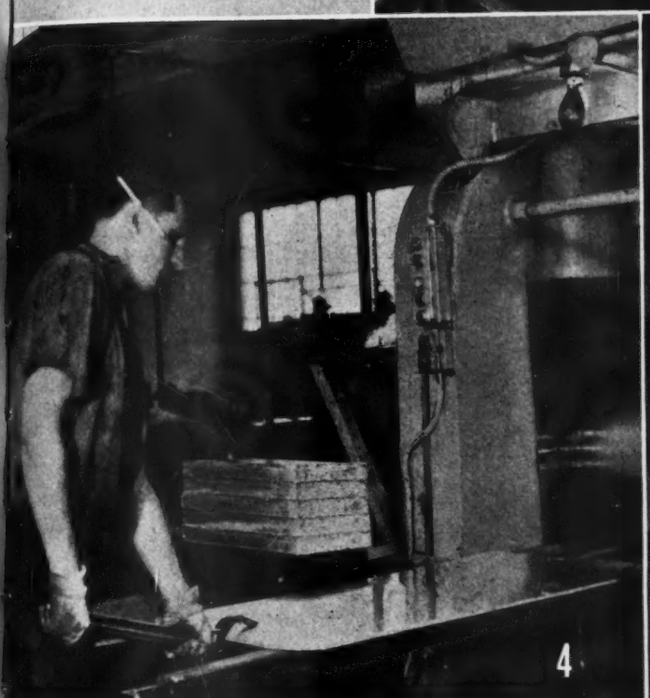
Atlantic Zinc Works employs what is called a "machine cut finish" for photo-engravers' zinc plates. In this machine a sheet of zinc up to 50 in. wide by 12 ft. long can be finished on both sides, if desired.

Briefly, the plates are ground and polished by passing them under a wide belt, the surface of which is charged with abrasive particles. The abrasive belt, traveling around a large drum, travels in a direction opposite to that of the direction of travel of the zinc sheet as it is passed underneath the drum. The pressure roll supports the zinc plate against the adjustable pressure of the belt. See Figs. 5 and 6. The plates are passed


B
C
A
1

2

3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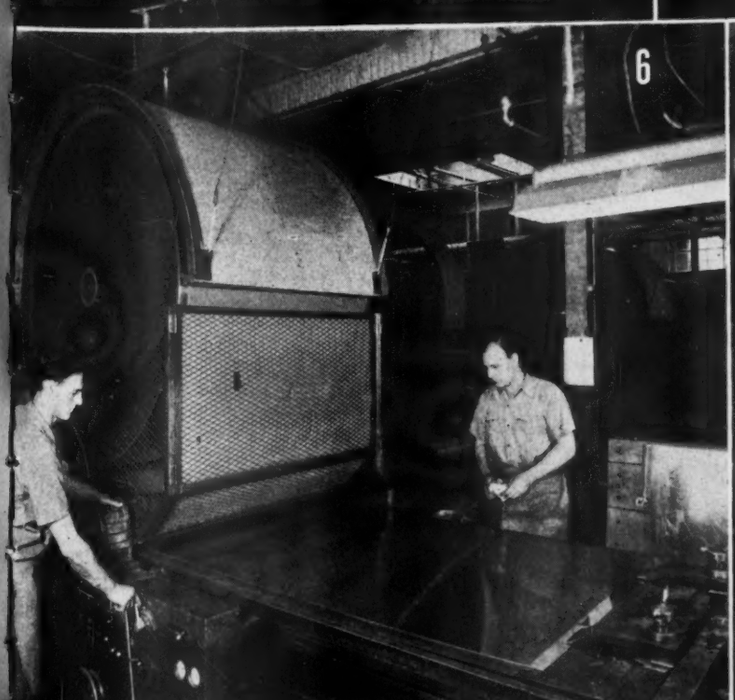
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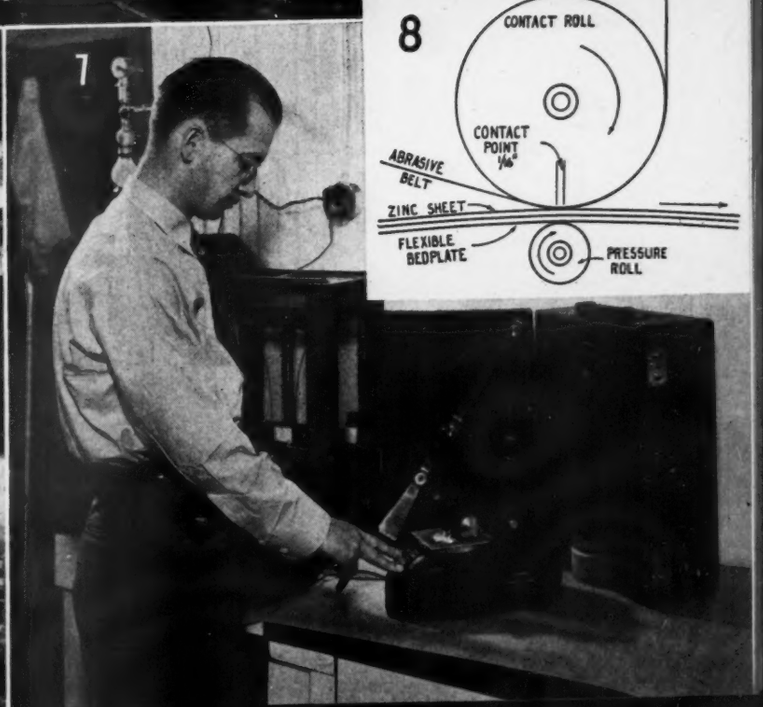
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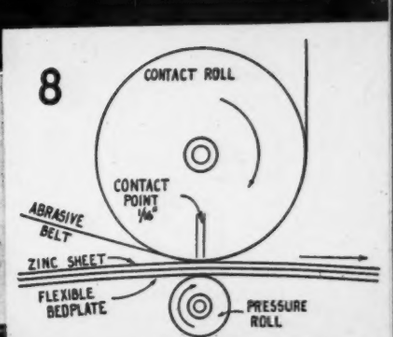
CONTACT ROLL
CONTACT POINT 1/16"
ABRASIVE BELT
ZINC SHEET
FLEXIBLE BEDPLATE
PRESSURE ROLL

under the abrasive belt a sufficient number of times to produce a finish of microscopic accuracy.

The unique feature of the abrasive belt is that the grains are positioned in the glued surface of the belt by an electrostatic process using 50,000 v. The polishing grains are about twice as long as they are wide. In this polishing process it is important that the grains stand on end with their sharp points at the same level. Just as the compass swings with magnetic force to the north pole, so this method causes every grain particle to stand up in correct position. In addition, this electric force spaces the grains at uniform distances from each other. The uniformity in thickness of this belt varies only a fraction of a thousandth of an inch over its entire 84 sq. ft.

Final Plate Cleaning

After the sheets have been ground and polished as described previously, they are inserted in a machine for removal of all but a minute trace of oil from the metal. This amount of oil is the least amount that will protect the surface of the metal from oxidation from the atmosphere. Likewise, it cannot contaminate hot or cold top etching solutions, developer or etching bath.

Inspection and Testing

Fig. 7 As in other manufacturing operations, every precaution is taken in the manufacture of zinc plates to guard against any deviation in the finished sheets. The standards set in the manufacturing processes are not taken for granted. One of these numerous testing operations is shown in Fig. 7.

The composition of the finished plates is checked by analysis, even though the various zincs blended together are analyzed before being used. This last analysis guards against any mistake in blending. Each individual finished rolled plate is inspected for flatness, gauge and freedom from defects. Samples from every lot of sheets are tested for engraving quality under commercial conditions.

In our laboratory, the equivalent of the well-known charcoal test, but with more exact control of conditions is made by using the testing machine shown in Fig. 7. In this machine, rubber-bonded abrasive wheels rub against the rotating specimen plate under a definite pressure. The number of revolutions required before the finish is ground off measures the depth of the finish. The range between the shallowest and the deepest scratches measures the uniformity of finish.

The exact average degree of tooth is measured by a profilometer, which measures (in millionths of an inch) and automatically averages the distance between the peaks and valleys of the finish.

Mechanical and Production Executives *are invited to pass along to the editor descriptions of devices or systems devised in their plants so other executives can profit from them.*

EMPLOYMENT
AND SERVICE

Employers, production and mechanical executives may insert notices in this department. Items may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions. Any reasonable request by an executive on a subject other than those listed will be granted cheerfully.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

Address all communications with box number to *Printing Equipment Engineer*, 1276 West Third St., Cleveland 13, Ohio.

PRINTING PLANT EXECUTIVE — Excellent present and post war opportunity with equipment manufacturer, eastern location, for man experienced in printing plant operation and methods. Must know printing machinery, equipment and processes. Capable of analyzing, recommending, developing and testing new products used in printing plants. Give complete details as to age, experience, draft status, and salary expected. W.M.C. rules observed. Reply Box No. 201.

BINDERY OR PRINTING PLANT EXECUTIVE—Excellent present and post war opportunity with equipment manufacturer, located in East, for man experienced in every phase of Bindery operations and methods. Capable of analyzing, recommending, developing and testing equipment used in Binderies. Sales management ability desirable. Give complete details, age, experience, draft status, salary requirements. W.M.C. rules observed. Reply Box No. 202.

Pertinent Wartime Printing

A PARTICULARLY outstanding example of slanting normally peacetime materials into the war effort is the subject matter of the *Copper & Brass Research Bulletin*, published intermittently by the Copper & Brass Research Association at 420 Lexington Ave., New York, N. Y. The *Bulletin* is 8 in. by 10¼ in. size and ranges from 20 pages to 36 pages.

All of the content is directed toward the use of copper and brass in the war effort. The publication demonstrates what industry can do to cooperate with the war effort. Predominantly illustrative in content via photo-engraved plates, the page layouts have been skillfully and attractively handled. A striking feature about the *Bulletins* is that minimum margins on all of the pages have been utilized, yet at the same time the appearance of the pages is enhanced by the very lack of margins.

The covers are printed in four color process and are press varnished to give brilliance to colors. The publication is printed excellently by letterpress throughout by The Read Printing Company, New York. Two of the bulletins were entered in the DMAA and the NYEPA contests and in each instance were given special awards.

TECHNICAL LITERATURE

Production and Mechanical Executives wishing to secure copies of the literature described below may do so by addressing the manufacturer direct, or by sending request to Printing Equipment Engineer.

Catalog and Instruction Book

Linotype Parts Company has published a 6 in. by 9 in. catalog and instruction book for Cushman Offset Motor used on line-casting machines. The catalog is well illustrated 12 pages and cover. Complete instructions are given for installing motors, changing pinions and for general maintenance. An illustrated parts list identifies all replaceable motor parts.

Two Dexter Parts and Supplies Catalogs

Dexter Folder Company has issued two separate parts lists or catalogs for standard repair parts carried in stock for Dexter Knife and Tape Folders for Dexter Pile Feeders.

The first of these is an 8½ in. by 11 in. 20 page illustrated parts list No. 1 for Dexter Folding Machines. The standard parts are listed in two ways: (1) Alphabetically by name of part, and (2) Numerically, by number of part. Full instructions are given for ordering parts.

The second publication is an 8½ in. by 11 in. 40 page illustrated parts list No. 2 for Dexter Pile Feeders. Full instructions for ordering parts are presented, together with identification charts illustrating pins, shoulder pins, and threaded pins and screws, and a separate chart showing styles of suction rubbers for Dexter Feeders.

Copies of these publications may be had by users upon request to Dexter Folder Co., Pearl River, N.Y., direct, or you may direct your request in care of Printing Equipment Engineer.

Dexter Folder Co. announces that parts books are in preparation for Cross Continuous Feeders and for Cleveland Folding Machines. It is expected these books will be completed in about two months.

Wartime Letterheads

The New Orleans *Times-Picayune* letterheads are printed with regular plates upon newsprint stock salvaged from that paper's pressroom waste. The newsprint letterhead idea was adopted to further paper conservation as much as possible. As a wartime measure, use of the newsprint stock is extremely effective—one becomes conscious immediately of the change in paper when he picks up a *Times-Picayune* letter from the morning mail.

"A Plant Grows in Brooklyn"

MDCCCLXXXVI—MCMXLIV

★

FROM SEEDS sown in Baltimore and transplanted half a century ago, the plant *Linotype* set its roots deep in the soil of human needs and still continues its growth—in Brooklyn. The spread of its branches and its influence upon all races know no national boundaries. Wherever civilization and progress exist, in all known walks of life—in industry, science, art and religion, *Linotype* has contributed to man's advancement.

From time to time, letters addressed merely to "LINOTYPE, U.S.A." have been delivered without delay to 29 Ryerson Street, Brooklyn—the plant that grows in Brooklyn.

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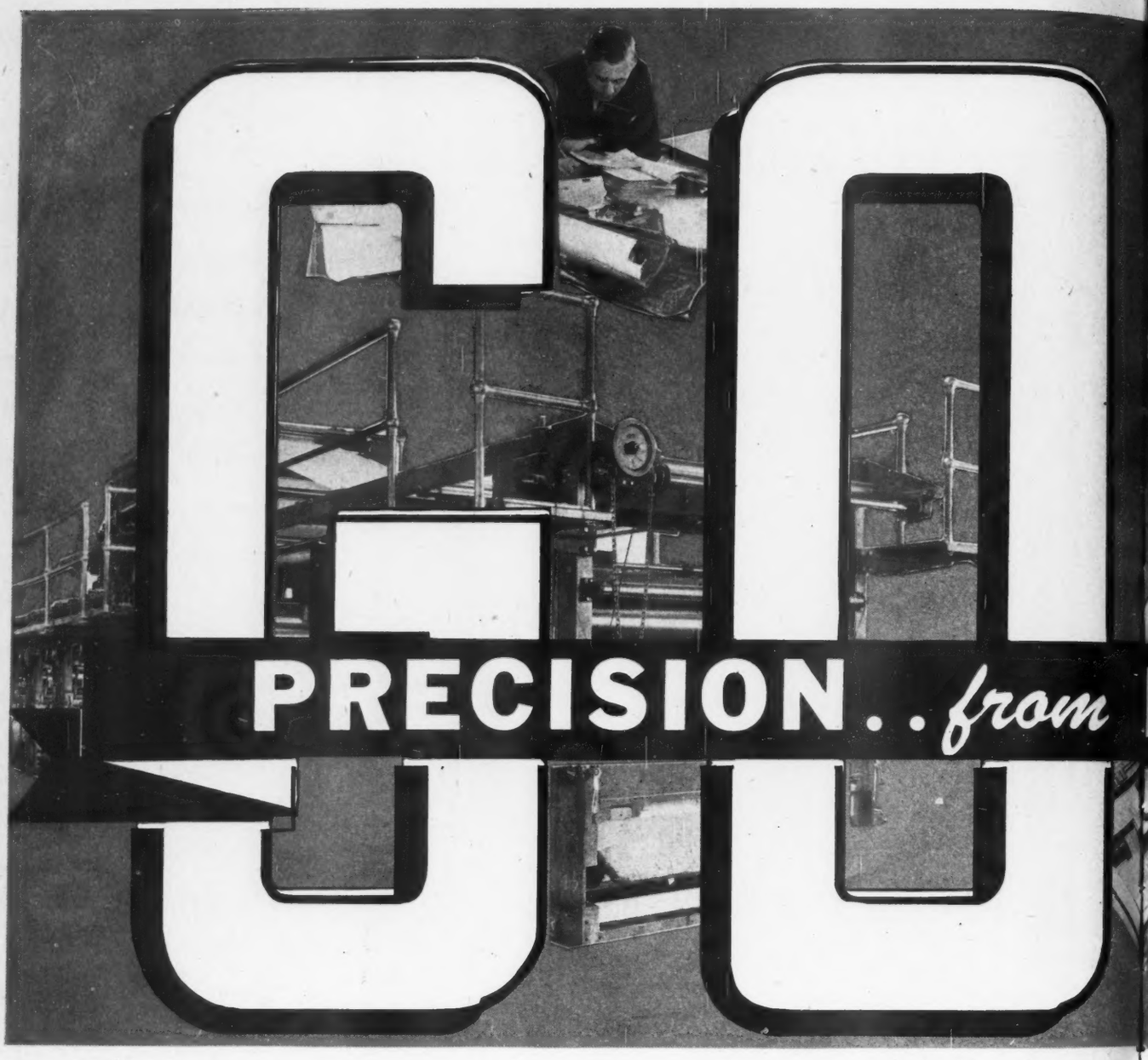
★*Be it Brooklyn, Boston or Boise—Buy Bonds to Build Big Bombers!*



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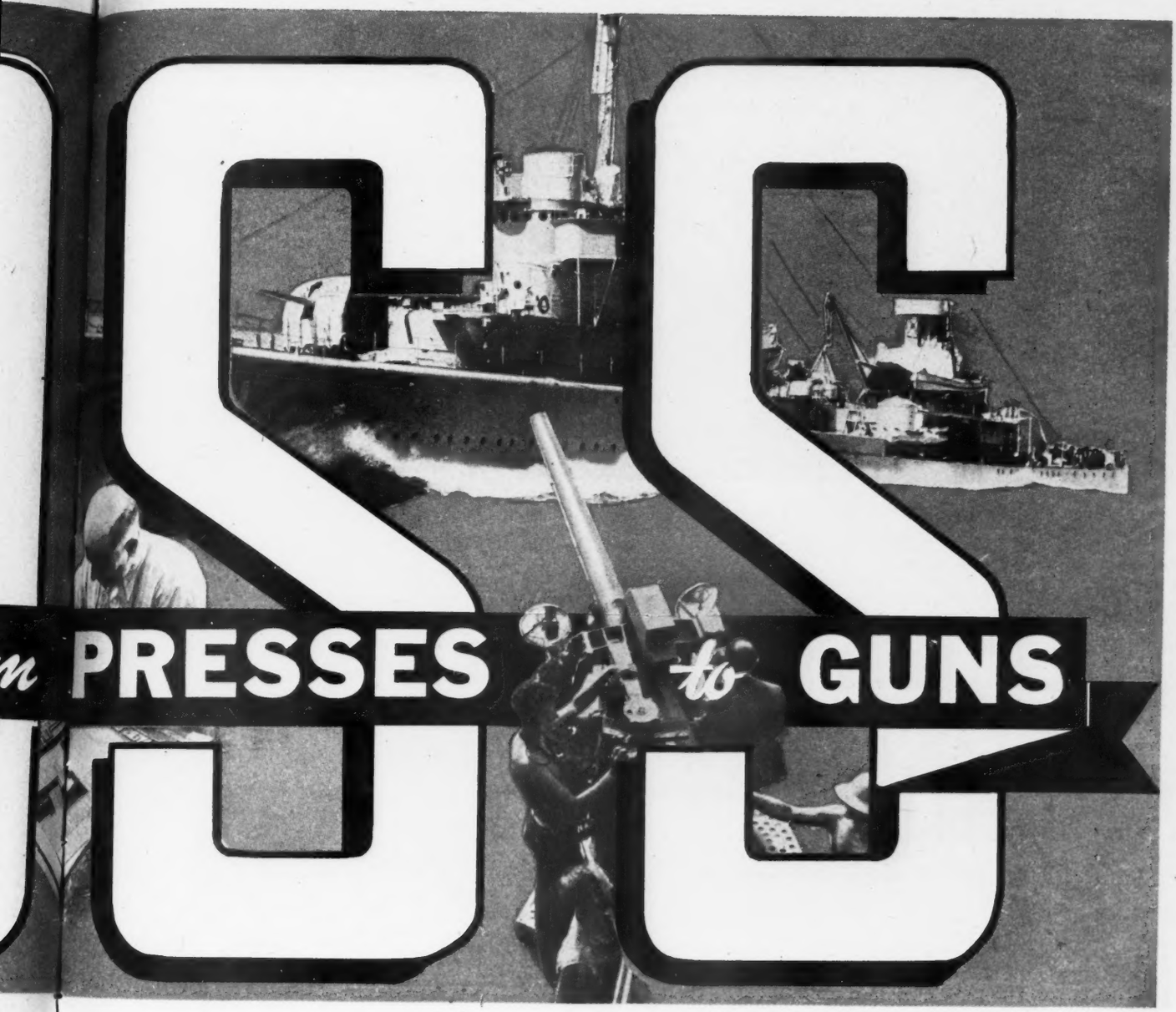
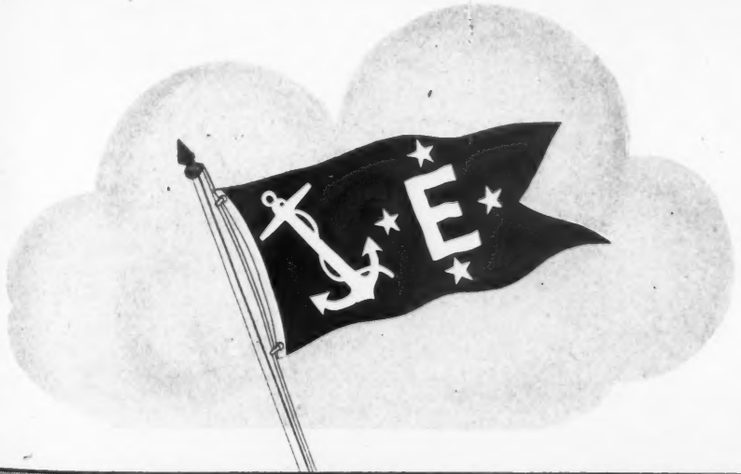
Even before war came - American Industry was tuned to a frequency that had developed marvelous precision in mass production . . . Goss workmen shifted readily - FROM PRESSES TO GUN MOUNTS - since PRECISION was just part of their regular, daily job . . .

That this same precision has been built into the 5-inch gun mounts GOSS has been delivering to the Navy is evidenced by FIVE NAVY E Awards . . . We at GOSS are proud of this continued record of INDUSTRIAL ACCURACY . . . which has been developed over the years in the building of presses, large and small . . . machines that demand the utmost precision of registry with speedy delivery. The same principle applies to quick-firing Navy guns . . . that's why Goss workmen could make the change-over so rapidly.

After Victory - Goss workman will just as quickly switch to the construction of POST WAR PRESSES . . . embodying every possible improvement to meet the new demands for fine impression - speed - and accuracy of register. They will be POST WAR MODELS in every sense of the word . . . built with the precision and care that has become Goss Tradition.

Until then . . . we urge you to "keep your presses rolling" . . . by frequent, careful inspections . . . replacement of all worn parts . . . and periodic servicing by GOSS PRESS EXPERTS. The rates are nominal and the service may eliminate costly breakdowns.





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Group picture of some of those attending the luncheon meeting at Hotel Fort Des Moines, Des Moines, Ia. This luncheon was held during the 1944 Iowa Newspaper Mechanical Conference. Some of those identified in the picture are as follows: Second from left at speakers' table is 1943-1944 president, Charles H. (Tod) Bleurer, composing room foreman of the Davenport *Democrat*. Immediately in front of waitress is Leon A. Link, member of the Printing and Publishing Division, WPB, who addressed the executives upon the publishing situation. At extreme right, speakers' table, is Paul Kamler, secretary-treasurer of the Iowa conference. Mr. Kamler is composing room foreman of the Clinton (Ia.) *Herald*.

Standing in the central part of the picture is Henry (Tony) Messina, of Burgess Cellulose Co., who pays an offside call upon Manny Caldwell, representative for J. M. Huber, Inc. Mr. Messina discussed *Moisture in Mats* before the newspaper executives.

EXECUTIVES *of Iowa Conference territory hold seventeenth annual mechanical get-together — Wartime technical procedures chief topics of conversation*

By STAFF WRITER

THE Iowa Newspaper Mechanical Conference held its seventeenth annual session at the Hotel Fort Des Moines, Des Moines, on Sunday, May 21. Also the Iowa Linecasting Machinists Association met in conjunction with the mechanical men at the same time. There were over 200 registered, besides about 25 who were unable to reach Des Moines, being marooned in the flooded area surrounding the city and were unable to get in until after the close of the sessions.

The conference was opened Sunday morning at 9 o'clock by President C. H. (Tod) Bleuer, composing room superintendent of the Davenport *Democrat*.

The address of welcome was given by Gardner Cowles, Jr., publisher of the Des Moines *Register* and *Tribune*, who after extending a welcome to the group, spoke on *Post War Newspapers*. He stressed the importance of newsprint and supplies conservation for the duration and urged everyone to do his utmost, so as to assure an early victory for the Allies.

In looking to the postwar period, Mr. Cowles said he believed many changes will be made. Due to the gains made in the radio and magazine fields, the larger dailies, to maintain their large circulation gains of the past, will be forced to publish a paper more on a par with national news magazines as to provide the use of color in advertising, news features and cartoons. This will also require a better grade of paper and ink. These changes will require the expenditure of large sums of money by the newspaper industry, for much new equipment also will be needed at the close of the present war.

The general conference then adjourned into the following group sessions:

Composing Room Meeting

ARTHUR SCHMEICHEL, composing room foreman, Muscatine *Journal*, acted as chairman. Much time was spent in the discussion of 9 col. classified pages. Those who have changed have found at the start it slowed up production to some extent, but conditions are gradually improving. Some papers are now using 1 pt. steel cutoff rules between classified ads. Many are setting 5½ pt. on 5 pt. slug where descenders in type faces will permit.

It was brought out most papers are printing on 66 in. rolls, though a few have gone to 65 in. paper with the use of 1 pt. steel column rules. One paper is setting column width at 11 picas and 11 points, with 3 pt. column rule. Practically all papers formerly using 6 pt. column rules have turned to 3 pt.

The use of women in composing rooms was discussed. Most plants are using women operators and some have girl apprentices. One of the metropolitan dailies employs a woman on makeup. Labor shortages are prevalent in most offices.

Stereotype and Pressroom Meeting

EARL CALDWELL, foreman of the stereotype department, Sioux Falls (S.D.) *Argus-Leader*, was chairman.

Henry (Tony) Messina of the Burgess Cellulose Company, spoke on the *Moisture Content of Dry Mats*. He stressed the care to be given mats before using—keeping them covered and away from open contact with the air. Most papers represented were getting from 5/8 in. to ¾ in. shrinkage. A few running on 65 in. rolls are requiring 1 in. shrinkage.

Color plates, rollers, blankets, impression and various pressroom problems were also discussed.

Thirty pound print paper came in for considerable discussion. Some have found it very satisfactory as to web breaks, especially those having recently built presses. Many have used 30 lb. print paper on angle bar runs and have found it satisfactory. The principal fault with 30 lb. print is strikethrough and how to overcome it. One prominent pressman stated he did not believe it would ever prove as satisfactorily as the standard 32 lb. paper.

Genial Val Wells, Asst. Mech. Supt. of Des Moines *Register* and *Tribune*, has been elected president of the Iowa Newspaper Mechanical Conference.

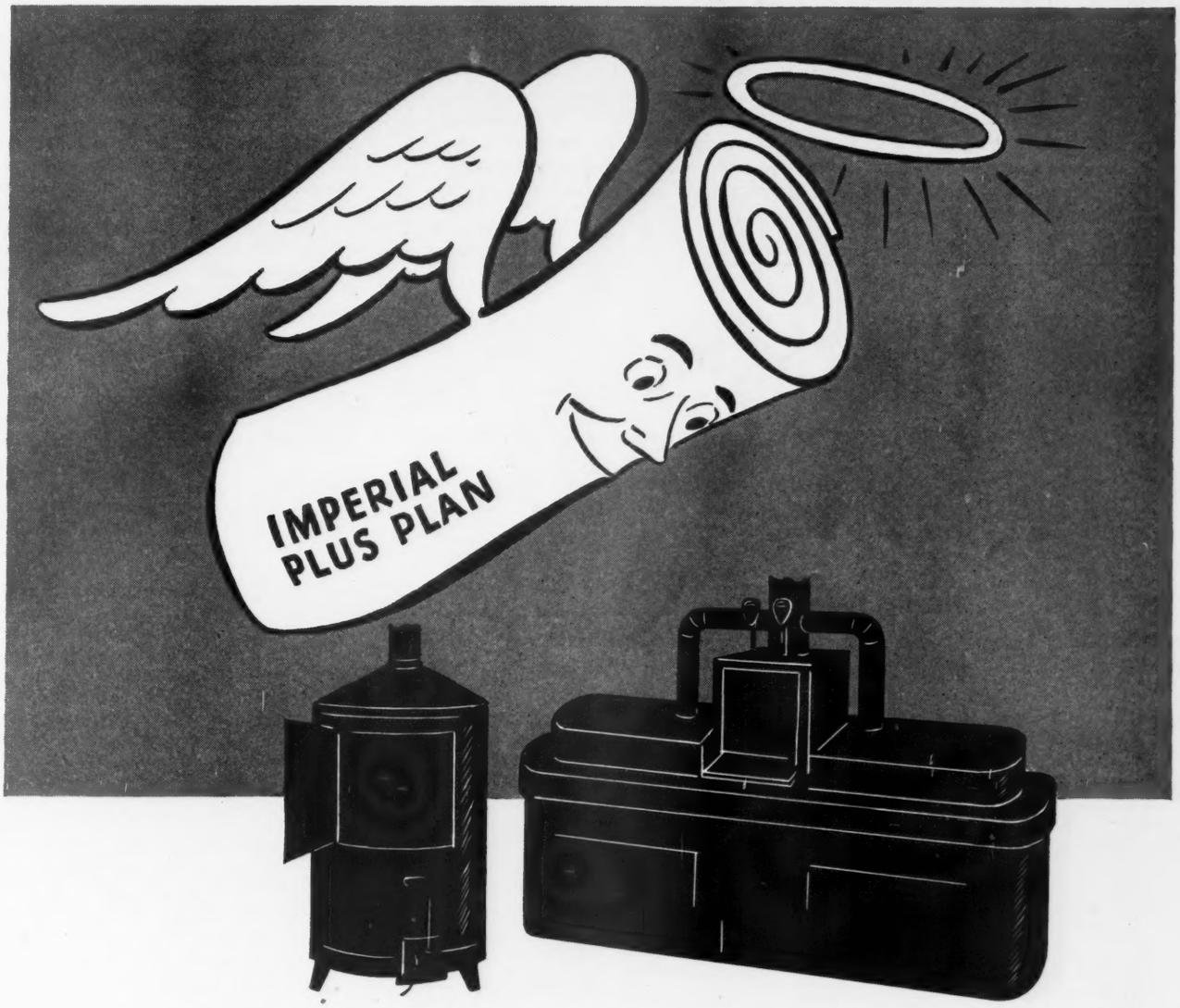
Engraving Department Meeting

KEN WAUGHTAL, Kayenay Engraving and Colorplate Co., Mason City, Iowa, presided.

Chairman Waughtal introduced George Yates, superintendent of the photography department of the Des Moines *Register* and *Tribune*. Mr. Yates presented some thoughts on postwsr newspaper

(*Continued on Page 86*)

A GUARDIAN ANGEL *for These Times*



THE IMPERIAL PLUS PLAN is a guardian angel over your plant for these times—yes, a guardian angel that watches over your type metal supply. Newspapers that Imperialize and place their confidence in the PLUS PLAN with regular analysis and plus metal replacement, can be sure that regardless of uncertainties due to the war, they will receive the best metal and service obtainable under present-day conditions. Not only is this true for wartime, but it is equally true that the IMPERIAL PLUS PLAN is a guardian angel over metal supplies at any time. Switch to Imperial and forget your type metal worries.

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Research Committee Appointed by ANPA Mechanical Committee Chairman

CHAIRMAN A. H. Burns, of the Mechanical Committee of the American Newspaper Publishers Association, has appointed a sub-committee to outline a plan for organized research on newspaper mechanical problems. It is hoped this committee will develop a workable plan which newspaper publishers will be willing to finance. The members of this Research Sub committee are John L. Blake, Scripps-Howard Newspapers, chairman; John W. Park, Production Manager, Chicago *Tribune*; and John A. Burke, Production Manager, Gannett Newspapers.

LINK DISCUSSES *pertinent things in the newspaper printing industry in relation to the war effort — Warns of possible industry wide control of material after war for a time*

By LEON A. LINK*

**Mechanical Consultant, Newspaper Section, Printing and Publishing Division, WPB, Abstract of address before Iowa Newspaper Mechanical Conference, Des Moines, May 1944.*

WE should not get the opinion that the time has arrived when it is in order to make unnecessary expansion and replacement of equipment in our plants. The war is not over. Certainly the events of the past month should be sufficient to convince us all of that. The struggles that are just ahead of us will cost us many more lives and consume much more material than any in which we have yet engaged. I am not imposing that upon you as just another idea of an arm chair strategist. That is the opinion of our military leaders who are firm in their convictions that we have a long way yet to go.

There has been an increase in applications for approval to buy machinery of different kinds. This applies to the smaller types of machines and not to larger items such as rotary presses, none of which have been built since WPB restrictions became effective. We fear some of these applications indicate expansion of operations. Such applications will not get the approval of the War Production Board. We appreciate that the purchase of most any kind of machine as a replacement of an old machine involves expansion to the extent that the new machine has been improved over the old one being replaced. When purchase of a new machine is approved as a replacement it is known that the approval carries with it approval of the expansion involved in the improved new machine.

The War Production Board is of the opinion that it would be a most unwise and unfair procedure to approve purchase of equipment intended for planned expansion or expanded operations. You have been operating with what you have and in many instances you are printing smaller newspapers because of print paper restrictions. If you can be provided with replacement parts and repairs for the equipment you are now operating you should be able to get along for a while at least. If military requirements will permit, applications for a reasonable amount of new machinery and equipment will be approved, if the machine is a replacement, if it is available from the manufacturer and if the need for it is shown. Should these applications for new machinery continue to increase, it is most likely more strict regulations will be applied. If the industry will co-operate and not attempt to purchase equipment not needed, we will likely be able to approve necessary requirements.

Some programs for the resumption of manufacture of civilian machinery will be approved, where the use of materials and man-power does not interfere with military production. Each branch of WPB has been instructed to place this work, in so far as it is within the province of the division, in plants located in number four and number three labor areas. Some resumption or expansion may be allowed in plants located in number two areas if there is no interference with military manufacture, however, all such programs for number two areas must have the approval of the War Production Board.

Practically all manufacturers have developed better machines and new devices and improvements will be found on everything from the small composing room saw to the high speed printing press. Your equipment is getting older each year. With every manufacturer expecting a rush of buyers at the close of the war, it would be a near miracle if sufficient material could be made available to supply all demands.

Governmental agencies are giving that much thought and while there has been no decision on the matter so far as I know, it seems most certain that some control of materials will have to be continued for some time after the war is over. If there is no supervision over the distribution of materials, the man who can and will pay the high price will be the first to be supplied. The man who may not be able to pay the high price, but whose needs may be greater, will have to wait until all the high bidders have gotten all they desire. The buying spree will not get in full swing the next day after the shooting has stopped if restrictions are continued. It seems the possibility of some control being continued for some time after the close of the war should be taken into consideration in making your plans for equipment installations you expect to make at that time. Regardless of what may be done, some of us are going to have to wait a while to get all or a part of what we may want.

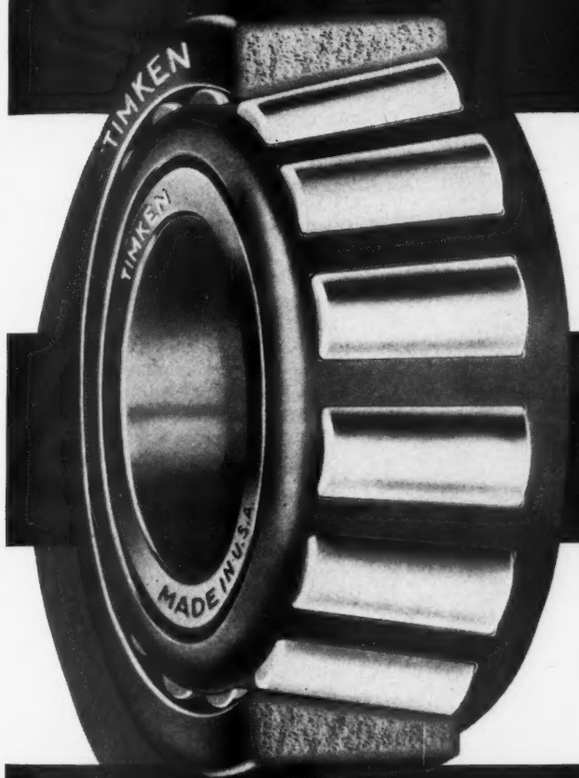
We are having meetings in Washington each month with the Newspaper Industry Advisory Committee, which consists of 23 of the leading publishers of the country. There is no indication of improvement in the newsprint situation and there are signs that point to still further reductions before the end of the year. The determining factors will be:

The military requirements for pulp.
How well newspapers and other users of paper conserve.
The manpower situation in the woods and mills.
How good a job is done in collecting scrap paper.

Most of us who are engaged in newspaper work can make some contribution to conservation of paper and promoting and assisting with the collection of scrap paper in our communities. The scrap paper drive throughout the country is not going as well as it should. It is important to every newspaper and every employee of a newspaper that full support be given to the collection of this scrap. Much of it can be used for making of cartons for shipment of food, supplies and munitions to the fighting forces. If we do not get enough pulp for this purpose from scrap paper, then it will be necessary to use pulp that would have been available to make newsprint. How well the newspapers organize and promote the scrap paper drives in their communities, may be a deciding factor in determining the date future cuts will become necessary.

There is opportunity to make additional paper saving in many newspaper plants. I think it unnecessary to discuss in detail what can be done in our pressrooms. You know better than I what can be done in yours. The important thing is, are you doing it?

(*Continued on Page 84*)



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TAPERED ROLLER BEARINGS

The ANPA Mechanical Committee

IN the June 1943 ANPA Mechanical Conference-By-Mail issue, *Printing Equipment Engineer* carried portraits and short biographical sketches of the members of the ANPA Mechanical Committee. Since then, several changes have been made in the committee personnel. The additions to the committee are Worth C. Coutney, Vice President and General Manager of the Toledo *Blade*; Edwin H. Evers, Production Manager of the St. Louis *Globe-Democrat*; T. A. Corcoran, Purchasing Agent of the Louisville (Ky.) *Courier-Journal*, and John L. Blake of the Scripps-Howard Supply Co., New York.

The present personnel of the committee is as follows:

A. H. Burns, Mechanical Superintendent, New York *Herald Tribune*, Chairman.
W. E. Wines, Manager, ANPA Mechanical Department, New York.
John L. Blake, Scripps-Howard Supply Co., New York.
John A. Burke, Production Manager, Gannett Newspapers, Rochester, N. Y.
T. A. Corcoran, Purchasing Agent, Louisville (Ky.) *Courier-Journal* and *Times*.
Worth C. Coutney, Vice President and General Manager, The Toledo (O.) *Blade*.
Edwin H. Evers, Production Manager, St. Louis *Globe-Democrat*.
Leslie J. Griner, Mechanical Superintendent, The Chicago *Sun*.
Maurice A. Hagan, Photo-engraving Superintendent, Philadelphia *Inquirer*.
John W. Park, Production Manager, Chicago *Tribune*. (Served as Committee Chairman for several terms.)
Charles H. Ruth, Superintendent, Washington (D. C.) *Star*.
John J. Shea, General Mechanical Superintendent, Hearst Newspapers, New York.

With the exception of Mr. Blake, who's portrait was not received in time for publication, *Printing Equipment Engineer* is presenting pictures and short biographical sketches of the new committee members.

Edwin H. Evers

STRICTLY engineering minded, Edwin H. Evers received his education in the public schools and at Washington University of St. Louis. His first introduction to the craft was in the commercial printing field. However, no youngster dreamed more hopefully of becoming a locomotive engineer (or a policeman, or a motorman) than he did of becoming a part of the newspaper production field.

Mr. Evers started newspaper work with the *Globe-Democrat* 31 years ago and has worked in all departments in the composing room. He liked the composing room environment and as he tells it: "Not even the hot forms being returned from the old steam tables in the stereotype department dulled my enthusiasm for newspaper work."

He was promoted from composing room foreman into his present job of production manager 12 years ago.

Those who know Mr. Evers and who have visited his plant consider him a "system man" because predominantly he strives for smooth organization and straightline production methods.

Mr. Evers is married and has two sons, both of whom are in the armed services. One of the boys is under contract with the Detroit Tigers baseball club. He lives in Collinsville, Ill., which is 12 miles across the river and east of St. Louis. His hobby is fishing, but with regretful shake of his head, he says: "This hobby has been neglected for some time because of gas rationing, sons in the services, newsprint rationing and other elements incidental to the war."

Worth C. Coutney

THIS new member of the ANPA Mechanical Committee is mechanically minded—partly because of his long association in the business-executive side of newspaper production and partly because of his close contact with prominent newspaper production and mechanical executives. At the present time he is vice president and general manager of the Toledo *Blade*.

Mr. Coutney commenced this world's activities in Belmore, Ohio, attended public school in Defiance County and high school in Leipsic; attended Normal School in Ottawa, and at Defiance College.

He enlisted in the Army in January 1918 and joined the AEF with which he was associated until July 1919. During the latter part of July 1919 he became bookkeeper and cashier for the Toledo *News-Bee*. Successively, he held the positions of office manager, display advertising salesman, national advertising manager, advertising director and business manager. On October 6, 1938, he was appointed business manager of the Cleveland *Press* which position he held until the early part of 1943. On June 10, 1943, Mr. Coutney was made vice president and general manager of the Toledo *Blade*.

T. A. Corocoran

T. A. CORCORAN is no stranger to newspaper mechanical executives, he having discussed newsprint waste in the newspaper plant at the ANPA Mechanical Conference in Pittsburgh in 1933, and in Toronto in 1938. He is purchasing agent for the Louisville (Ky.) *Courier-Journal* and *Times* and is in charge of maintenance, building and paper handling.

He joined the company with which he is associated as assistant purchasing agent shortly after being mustered out of World War I. He was made purchasing agent in 1921.

He is a graduate of New Albany (Ind.) high school and New Albany Business College. He was born in Covington, now lives in New Albany. Is married and has three sons, the oldest of whom is in the air force.

Mr. Corcoran is a past president and is now a member of the board of directors and chairman of the program committee of the Purchasing Agents' Association of Louisville. He has also served in an official capacity with the National Association of Purchasing Agents.

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	COPPER ANODES
	MOR-TIN-METAL (an adjusting alloy)

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Imposition Notes . . .

By A. J. HOERTH*

**Summary of address delivered before the Cleveland Craftsmen's Club, March 1941.*

IN book, catalog or publication work we should use the layout furnished by the bindery so that the form can be imposed to fit a certain folding machine or, if hand-folded, to be handled in a certain manner. Always consult the bindery foreman before laying out a form as to how he wants it. Too many stone men assume the responsibility of laying out a job for hand or machine folding. The bindery foreman knows his equipment and personnel best and may have specific reasons for running the job on a different folding machine. Also consult

Detroit's Hy Vogel drew this excellent caricature of Al Hoerth.

him as to where he wants small sections placed in a side-stitched or sewed book as well as a saddle-stitched job.

Lock Up Forms Correctly

After receiving the layout, select a square steel cut chase that is strong and firm and lies flat on the imposing table. Wherever possible, use a chase with bars both ways as this makes for a better lock-up. A springy chase often causes workup and other annoyances.

In deciding the margins of a book, always hold the page towards the backbone from 2 to 6 points. It takes care of wide pages; it permits trimming on side to cut down weight to meet a certain postal rate, to say nothing of making it appear more centered because the margin in the backbone is twice the amount of that on the trim side. Also place the page two or more points above center as the eye has a natural tendency to strike above center. When the page is perfectly in center it appears to be below center. This is especially true of copyright pages and often title pages. When there is only a line or two of type on a page it should be raised two or more picas above center. Always allow ⅛ in. trim on the head, balance on side and bottom—regardless of size of paper. When you have, for instance, a 128 page saddle wire book, the margins in the backbone should be graduated so that outside sections have more margin than the inside sections. When the book is trimmed, the margins will appear more uniform than if the same margin were used throughout.

Select the proper length of furniture. Much time is lost in the lock-up department and in the pressroom because of old, uneven furniture and worn-out quoins and keys. It is a good investment to replace lock-up furniture every six months or a year. This will save many dollars and will result in a much higher quality of work. Full length furniture should be used for the sides and back margin and short pieces for the heads and feet in most cases. This refers to book or catalog lock-up. When locking up a form containing sharp rules it is a good plan to try to place them in a chase so that the rollers will not strike the rules first. This is also true of forms containing perforating rules. In most cases, a piece of 6 pt. rule or border can be placed at the ends of perforating rule to protect the rollers from being cut. When locking up a book or catalog job that consists of several signatures, collating markers should be used. Place them in the backbone between the first and last pages. They should be placed about 1½ inches from head and they should be dropped down on each succeeding signature, so that when all signatures are gathered and ready for sewing or side stitching it is immediately apparent whether any signatures are missing and also that they are in their proper position in the book.

Hints For Color Forms

If it is a color form and mounted originals or electros are used, place registering nuts or short leads at sides near top and bottom as well as in center of top and bottom of each page to permit moving or swinging the cut without the necessity of breaking up a lot of furniture. If patent base is used, see that the form is properly locked up before placing plates on form. This is especially necessary where a sectional base is used. Just tighten the hooks on ends, top and bottom, leaving extra hooks loose until the form is in register on the press. Never move a plate on the stone or press without first loosening up the opposite catches. Never apply a great deal of force to a catch as it is not necesssry. Just run the catch up to the plate securely and let it alone. Forcing often causes a bulge or spring in the plate and when the cylinder passes over it, it digs into the plate and sometimes breaks the catch.

There are many different kinds of plate-mounting systems and all of them have good features peculiar to themselves. Some are more suited to one class of work than another but all of them are far superior to the old method of mounting on wood.

Select good quoins and place them properly around one side and top or bottom of form. When a chase is used without bars, place the quoins at the gear side and gripper side of the chase to permit accessibility to the form for unlocking as well as having a solid portion to lock against. When quoins are placed at the rear of the form all the strain or drag is against them, sometimes causing them to loosen up.

When locked up and ready to send the form to press, mark the gripper and side guide on the chase so that the pressman will be able to determine how to place the form on the press bed without inquiring from the lock-up man.

Position Of Form on Sheet

In determining the position of the form on the sheet, exactly half of the standard size of the paper (not of the sheet) should be measured from the side guide. Do not fold the sheet in half to determine the size because there is a variation in the paper. It is rarely found that it runs under size, but very often runs oversize. This method prevents short sections where the trim is small and when trimming on the cutter, these small sections will not be touched by the knife.

It is a good rule on large jobs where there is more than one form to keep the first sheet that has been lined up properly and has been OK'd for position as a master sheet. The master sheet should be used for all succeeding forms so that the same gripper bite and the same margins are maintained throughout the job.

In lining up each form individually, variation in the margins may cause the folding machine operator to change his guide and grippers constantly in order to keep the same margins. It is practically impossible to rule two sheets exactly alike whether done on a line-up machine or by hand.

It is customary for the pressman on patent base forms to mark out his underlay while the first impression is being lined up for position. This saves considerable time in the pressroom. Before lining up the sheet, make sure that the pages are straight on the gripper edge. You might find a variation on the side guide, but if the gripper edge is straight, the variation on the side guide will take care of itself in the folding and trimming.

It is customary to have the stone man register the plate form on the press until he has it within 2 pts. of the proper position. From this point the pressman usually does the final registering because if the form is in perfect register before the overlay is hung on the cylinder, it will be found to be out of register about 2 pts. after the overlay is hung. This applies especially to color work. After proper register is secured, it is best to plug quoins to prevent slipping.

When HIGH-SPEED PRINTING is called for...

Instant drying FLASHDRI inks now are available for many types of rotary printing. Having pioneered the principle of quick drying inks, Levey has accompanied their development with research in, and perfection and manufacture of suitable drying equipment which enables the Printing Industry to attain a speed of production consonant with present and future demands.

With the knowledge and experience gained in the field of quick drying inks, Levey designs and produces individual drying equipment which, **added to existing equipment,** largely increases plant efficiency and notably reduces ultimate costs.

And it may be added that Levey is the **only** ink maker who maintains equipment engineering and manufacturing departments and extensive research laboratories which are accelerating expansion in the high-speed printing field.

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We invite inquiry regarding specific requirements.

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FRED'K H. CO., INC.

Makers of Fine Printing Inks Since 1874

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Thomascolor Optical Unit

Produces four color-corrected images simultaneously — Writer speculates upon its application in the Graphic Arts

By ADAM HENRI REISER

ADAPT, improve, invent, apply, research! These are terms employed prodigiously these days in articles on printing. Realization is borne that printing must keep abreast of the times. This was stressed by Supt. Russ Hogan recently of New York's Wickersham Press in a talk on the need for fuller utilization of the good things of other industries. He advanced some ideas he had along the lines of adapting the improvements in other fields to the printing industry.

Of course, we all know what adaptability means. An illustration of the term is brought home in the story of the three clothing stores doing business in the same block. One morning the end store displayed huge signs reading "Slight Fire Sale." The following day the store on the other end breaks out signs reading "Clearance Sale". The adaptable chap in between the two stores put up a large sign over his door reading "Main Entrance".

Under the heading of possibilities in the field of adaptation may come the method of producing color movies films known as Thomascolor. What is Thomascolor? How can it be applied to the reproduction departments of the graphic arts?

Thomascolor

Thomascolor has been described as a method of making full natural color photographs in a mechanical manner. Perfectly balanced color-correct negatives are said to be produced in moving picture photography by means of Thomascolor. Its use in moving picture color photography is said to be assured.

Thomascolor used in photography and projection makes use of the principles of refraction combined with those of partial or total reflection. Applying these principles, the Thomascolor device produces four, color-corrected images simultaneously. Emphasis is placed upon the fact that this is not just another three-in-one shot shot photographing device. No use is made of mirrors, lenses combined with filters being the sole means of achieving the final result. In this, there is claimed the possibility of getting absolute register to 0.0001 in. There is no dyeing of the film. Production of the separations is just as easy as operating a black-and-white camera since only single emulsion film is used, combined with regular development and operating technique. One exposure begets four color-separation negatives.

In the taking camera, the regular lens is replaced by the Thomascolor optical unit. Replacing the lens with the optical unit is as simple and quick as changing lenses. This lens unit separates the color on panchromatic film. The heart of the optical unit is a four-element lens assembly that divides rays reflected from the object. The system acts as four separate lenses, using four color filters: Red, blue, green, and violet. Thus four separate images are formed on a single film. Ortho film may be used to produce the positive made from the color separation negative.

Application

How can this method be applied to the Graphic Arts' reproduction branches? Is it used therein now? Well, as yet there is no evidence of its wide use in any one of the platemaking procedures. It is claimed that there would be a tremendous saving of time in the camera, platemaking and press departments. This is apparent if the elimination of all hand work on the separation negatives or resultant positives could be accomplished. But let's examine the situation in reproduction. A considerable percentage of the work in the reproduction field is produced from color sketches. The water colors or oils used in these sketches aren't always selected with an eye to their cleanness, their photogenic traits, their reaction to photographic emulsions, or their ability to combine with other colors to yield fewer printings. There is considerable difference between separation of color in natural objects and those hand-painted. The camera and its detection ability in the field of reconnoissance—its ability to detect and reveal camouflage, illustrates this vividly.

It is no secret that process cameramen find it advantageous to combine filters at times when making color separations from sketches in order to give the process artist the result felt necessary to get an acceptable final result.

In addition to all this there is also the difference in the way the two results are produced. Viewing a separation either on the screen or by viewing through the transparency, is one thing. Reproducing that and printing the result in inks and viewing it on paper is definitely something else again. Our color inks are wonderful. But, remarkable as is their production and their composition, brilliance, hue and color, they nevertheless fail to compete with natural color or the water-or-oil colors of sketches. Therefore, it becomes necessary to correct the films so that the result in printing will compare favorably with that as seen by the eye. Correction must be carried out so that the result seen by the eye matches that seen by the camera lens.

Retouching thus became a necessity In this we find varied techniques. Some favor no work on the color separation negatives at all, contending that any hand work at that stage would unbalance values. Others believe considerable time and money is saved by hand correction at the initial stage.

The separation negatives must permit full range of color tone so that in the subsequent halftone photography the positive made will carry the finest dot with definition in the shadows. There is where most of the color photographs are lacking—in details in the shadows. Ofttimes the attempt to get shadow detail results in a flat picture that fails to hold the crispness so desired in the Graphic Arts. Readings of the separation through the spectrometer will aid immeasurably in all this work.

Usefulness in Graphic Arts Field

Thomascolor is undoubtedly an adjunct to the commercial studio, just as the three-in-one shot camera helped that field. Apparently, it would also help directly those printing, lithographic or gravure plants in which commercial studios are set up. If there is demand for its use in that field—enough to justify investment in space and equipment—undoubtedly it will find its way into the shops of the Graphic Arts. However, from my experience in the field, it would seem that the device should find greater use in the commercial field.

For it may be just as out of place in the industry as was the man whose full dress suit was ripped at a ball. His wife figured she could sew it while the dancing was going on. As soon as the band struck up a tune, she took her husband into the powder room. He took off his trousers and the repair was begun. Hearing some ladies headed toward the room, she hurriedly pushed the undressed man through a door. Pounding the door from the other side, he yelled "Let me in!" "Shh-h-h," she admonished, "there are ladies here." He yelled, "What do you think is out here? I'm in the main ball room."

It is the writer's belief, however, that if the device does not render direct aid to the printing industry it will have rendered indirect aid by its revolutionary thoughts and improvements in the field of color photography.

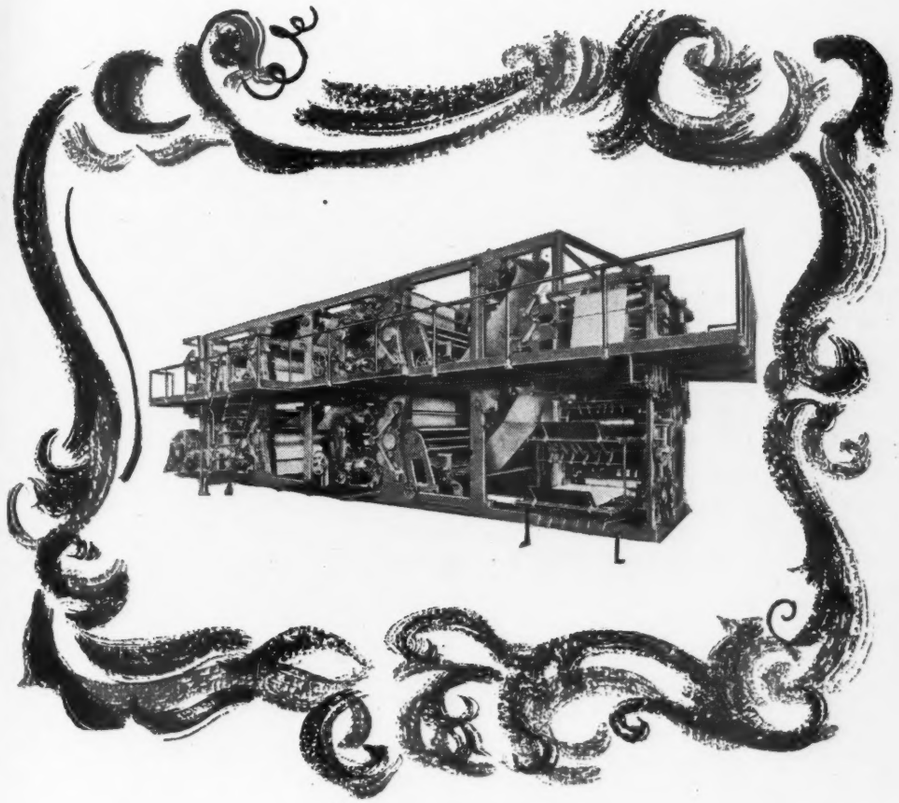
Morley Buys M. & M.

The Morley Company of Portsmouth, N. H., manufacturers of newspaper and commercial stereotype mats, has purchased The M. & M. Supply Company and will operate it from Chicago, as The M. & M. Supply Division of The Morley Company.

The M. & M. Supply Company deals in newspaper stereotype, pressroom and composing room supplies.

Joe Goggin, district manager of the mid-western states for The Morley Company, is now associated with The M. & M. Supply Company, but will continue on stereotype mats as his principle endeavor.

3 years young...



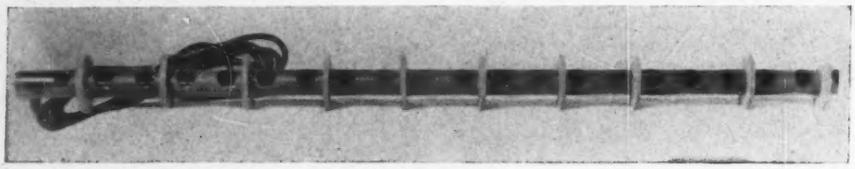
It has been almost 3 years now since Cottrell built and delivered the "last press before Pearl Harbor". This press, a giant double-deck double two-color mail order catalogue press is doing yeoman service right now, carrying the great overload of wartime printing. This huge Cottrell prints 64 signatures in two colors at a speed of 16,000 revolutions an hour folded in all the necessary combinations for large edition catalogue production. When it is running 32 pages in four colors, its speed is only limited by the quality of the work needed and by its ability to dry the ink. This press, like all the other Cottrell models that print in two, four and five colors was designed along lines that will meet the needs and demands of post-war printing—speed, quality and low cost.

C. B. COTTRELL & SONS

WESTERLY • RHODE ISLAND

New York: 25 East 26th Street • *Chicago:* Daily News Bldg., 400 West Madison Street • *Claybourn Division:* 3713 North Humboldt Avenue, *Milwaukee, Wis.* • *Smyth-Horne, Ltd.*, Chipstead, Surrey, England

Equipment and Supplies . . .



View of Simco Fibre-encased Midget Static Bar.

Fibre Covered Midget Static Bars

A NEW line of metal encased static bars with an outer casing of fibre has been developed by the Simco Company.

This type of bar eliminates positive charges of electricity which are inherent in such materials as wool, nylon, rayon and certain kinds of transparent films.

The bar consists of a charged inner bar with points spaced throughout its length and a brass casing surrounding the inner bar with holes spaced equally throughout its length so that each point of the inner bar comes in the center of the hole of the brass casing, the inner bar being held in position in the brass casing by insulating bearings. Over the brass casing is a snugly fitting fibre covering. Before drilling the brass casing, the outer fibre casing is slid into place and both are drilled at the same time.

Metal clamps metalically connected to the grounded framework of the machine to which the bar is applied are used at each end of the bar and sometimes at the middle to support the bar. The brass casing of the bar is therefore insulated from the ground by the fibre casing and is charged by induction from the inner bar and ground. The potential of the brass casing is adjustable and it is therefore possible to fix the casing voltage at the most efficient point for eliminating a particular kind of charge.

These bars, states manufacturer, are suited to applications where highly inflammable vapors are present, for two reasons: First, the charged parts of the bar are protected by the outer casing of fibre against accidental contact with anything which might produce a spark, and second, since the brass casing is ungrounded, the tendency for a corona discharge or actual spark discharge to take place between the points of the bar and the brass casing is reduced to a minimum.

As a further protection against the possibility of a wet web of material coming in contact with a live point, fibre protecting rings are sometimes provided every few inches along the bar.

The inner bar, manufacturer stated when explaining the new device, is supplied with a high voltage, low ampere alternating current from a Midget power unit. The charged points of the bar produce in the air adjacent to the charged material an excess of electrons during the first 1/120 sec. When a material is uncharged it has equal quantities of negative charges (electrons) and positive charges (protons). When the material becomes charged it means that it has either an excess or a deficiency of electrons (which are the lighter very much more mobile charges). If the material has an excess of electrons, then during the 1/120 sec. that the air surrounding it has a deficiency of electrons the excess is drawn off into the air and vice versa. With the fiber encased bar, it is possible to increase or decrease the excess of electrons in the surrounding air during the part of the second when excess prevails. This bar has been found useful in discharging certain materials.

It is claimed no sparks whatever come from this bar. It causes a quiet ionic transfer and therefore is safe for use in machines such as rotogravure presses.

Electronic Relay Announced by GE

A NEW electronic relay for amplifying the very limited current transmitted by delicate control contacts or high resistance circuits, thus materially increasing the application range of many control devices, has been announced by the Industrial Control Division of the General Electric Company. Operated by any material having a resistance of from 0 to 500,000 ohms, or even greater if necessary, the new relay is especially suitable for controlling liquid levels in tanks and boilers, sorting metallic parts by size, detecting broken threads in textile machines, and as a limit switch requiring extremely light pressure to operate.

Small and light in weight, thus facilitating easy installation, the new relay consists of a strandard type electronic tube, a supply transformer, and an electromagnetic relay—all mounted in a totally enclosed, weather-resistant enclosure suitable for wall or machine mounting.

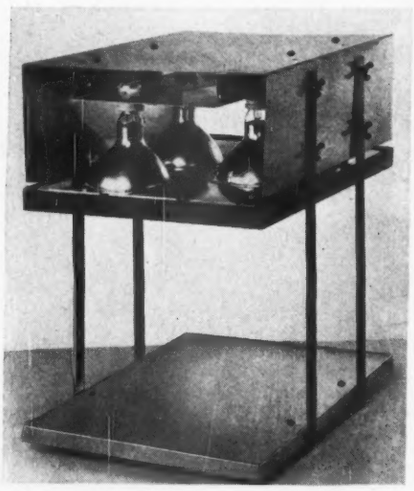
In operation, the electromagnetic relay in the device is kept energized as long as the controls connected to the input grid circuit of the electronic tube remain open. The instant these contacts close, the relay is de-energized. A built-in time delay feature prevents chattering when the contacts in the input circuit are momentarily closed. A contact arrangement on the electromagnetic relay permits the device to be used either to make or break a load circuit when the actuating contacts connected to the input circuit on the electronic relay are closed.

Infra-Red Drying Equipment

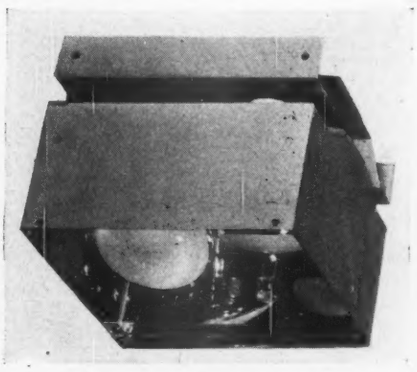
LOOKING forward to the postwar period, Infra-Red Engineers & Designers have announced Infra-Red ink drying equipment. However, those who can furnish the necessary ratings can be furnished this equipment at the present time.

The Infra-Red drying equipment consists of a Miskella Infra Bench-Kit for drying proofs as they come from the proof press, and the Miskella Hy-Heat Infra-Red Drying Equipment. This equipment, based on the unit system, may be mounted on cylinder and rotary presses for drying ink on the press.

The proof drying equipment shown in the illustration consists of a heat unit



View of Miskella Infra Bench-Kit for drying proofs as they come from the press. Furnished in sizes upwardly from 15 in. by 13 in.



Miskella Hy-Heat Infra Unit. One or more of these units may be mounted across the press to cover printing width.

An illustrated folder, available at your request, describes the C&G Positive Work Holder, Any Angle Miter Gauge, Balanced Saw Arbor with Automatic Indexing, Roller Bearing Gauge, patented Universal Saw Blades with Grinding Attachment, and other C&G time and labor savers.

Production minded executives choose the No. 3-A C&G Saw Trimmer because it is easy and simple to use, affords maximum output in minimum time, and offers the utmost in safety of operation.

The No. 3-A C&G Saw Trimmer has been developed with the closest cooperation of the men who use it. It is built for speed and accuracy under heavy duty. It has many exclusive features that contribute to positive and safe operation.

In addition there are special C&G attachments that greatly increase the capacity and range of operation of the No. 3-A C&G Saw Trimmer.

If you are looking for low cost production, send for your copy of the No. 3-A C&G Saw Trimmer circular now.

REPRESENTATIVE INSTALLATIONS

Nashville Banner & Tennessean, 6
Indianapolis Star, 5
Pittsburgh Press, 11
Detroit News, 10
Milwaukee Journal, 13
New York World Telegram, 4
New Haven Register, 3
New Orleans Times Picayune, 3
St. Louis Post Dispatch, 9
St. Louis Globe Democrat, 4
Los Angeles Examiner, 4
Chicago Daily News, 3
Tulsa World, 2
Cleveland Plain Dealer, 5

MILWAUKEE SAW TRIMMER CORP.

610 EAST CLYBOURN STREET MILWAUKEE 2, WISCONSIN

suspended upon standards over a base plate. The position of the lamp unit above the base plate is adjustable for acceleration or retardation of the drying rate. These units are made in sizes upward from 15 in. by 13 in. In the heat unit are mounted four 250 w. cementless lamps. The lamps are said to be 94% reflective.

A variable temperature control, by means of which the heat from the lamps can be varied from 70 deg. F. to 300 deg. F. without changing their position, can be furnished if it is desired.

For after-the-war delivery, Miskella Hy-Heat equipment for drying ink on the press has been designed. The equipment is made up of multiples of 11 in. encased units, each containing two infra-red lamps. Thus the widths of presses to be covered would be 11 in., 22 in., 33 in. and 44 in. respectively.

The metal encased units are constructed to provide spring mounting for the lamp sockets for minimizing vibration. The lamps are mounted at an angle of 90 deg. for effective drying duty. Inside the unit is affixed a parabolic trough reflective surface insulated from the outside casing with fiberglas. Should it be necessary the wiring in each unit may be reached easily by removal of a back cover.

Further information about Miskella Infra-Red Drying Equipment may be secured from Infra-Red Engineers & Designers, direct, or through *Printing Equipment Engineer*.

EXECUTIVE ¶s

A. F. Dallia of the Justrite Mfg. Co., Chicago, has been elected for a three year term to the Board of Governors of the Purchasing Agents Association of Chicago. The annual meeting at which the election of officers and Board of Governors took place, was held at Sherman Hotel, Chicago, on May 11.

Willard V. Merrihue has been named manager of the advertising and sales promotion divisions of the Apparatus Department of the General Electric Company, it was announced by the company May 3. Simultaneously he was named a member of the apparatus sales committee of the company. He was previously assistant to the manager of the apparatus publicity divisions, Robert S. Peare, whose election as vice president in charge of the company's advertising, broadcasting and general publicity activities was announced a week earlier. Mr. Merrihue started work in the editorial section of the company's publicity department in Schenectady in 1925, immediately after his graduation from the University of Pennsylvania with a degree of bachelor of science in chemical engineering. In 1930 he was named assistant manager of the industrial advertising section of the department, and in 1933 was appointed division manager of central station advertising. In 1939 he became assistant to the manager of the publicity department, in charge of the

Willard V. Merrihue is now manager of advertising and sales promotion divisions, Apparatus Dept., General Electric Co.

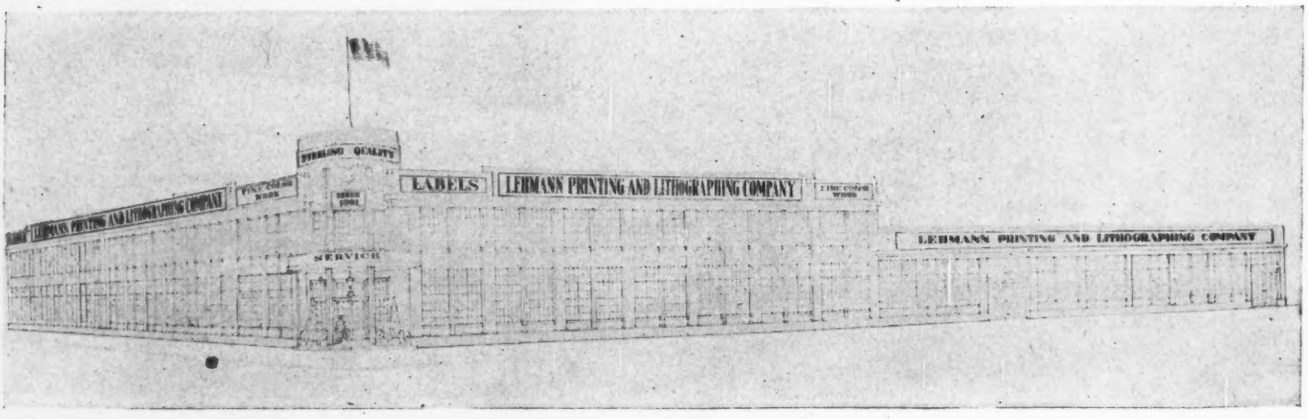
apparatus division, which position he held until his new appointment. In 1933 he received a Charles A. Coffin Foundation Award of the company for "initiative, ingenuity and perseverance in devising a new and unusual sales plan."

It has been announced by J. M. Huber, Inc., printing ink, dry color, varnish and carbon black manufacturers, that R. J. Cashion has been appointed general manager, and Carl Denman has been appointed sales manager. Announcement also has been made of the withdrawal from active participation in the management of the company of Walter G. Huber. Mr. Cashion has been associated with Huber enterprises in an executive capacity for the past several years. Mr. Denman became identified with Huber six years ago and has served as Southern Branch Manager and as Central District Manager with offices in Chicago.

Frank Cray, for many years Eastern District Manager of International Printing Ink Division of Interchemical Corporation, has relinquished his branch administrative duties in order to concentrate on important customer contacts and postwar plans. He will continue as a Vice President of International Printing Ink. A large part of his forty two years in this industry has been devoted to problems in publication printing. W. F. Cornell will succeed Mr. Cray as Eastern District Manager. Since 1940 Mr. Cornell has been in Washington, D. C., in charge of Interchemical's office where he devoted all his time to Government contacts for the parent company and its divisions.

NPEA Moves Office

James E. Bennet, secretary of the National Printing Equipment Association, Inc., announces removal of the Association's office to 140 Nassau St., Room 805, New York 7, N. Y. Telephone number is BArclay 7-5694.



Coincidental with future plant building plans of printing concerns as reported to *Printing Equipment Engineer* in the Printing Industry Questionnaires which are now being returned by printing executives throughout the country, is the announcement made by Adolph Lehmann of Lehmann Printing and Lithographing Co., in San Francisco, Calif.

Shown in the illustration above, is architect's design for a new office and factory building, to cover approximately a city block in San Francisco. The building is designed to be one of the most modern plants in the world. It will be devoted exclusively to the specialty of making labels for bottles, cans, boxes and other containers.

The enlargement plan covers approximately a million-dollar investment for building and additional equipment. The building will be erected as and when materials and equipment become available.

In discussing his company's future plans, Mr. Lehmann aid: "We have absolute faith in the future of our country as well as sure knowledge that postwar conditions will bring a great increase in business."

Sound the Alert!

MANAGEMENT
LABOR

—for the 5th War Loan drive during June and July. The need for the 5th War Loan is immediate, crucial. For impending events may make the 5th the supreme financial effort of the war.

The U. S. Treasury has set the overall goal at $16,000,000,000 — $6,000,000,000 from individuals alone. This is the biggest sum ever asked of the American people—*and it must be raised.*

That's why the U. S. Treasury asks Management and Labor to sit down together and organize—NOW!

For organization—good organization—has been responsible for the excellent showing of the payroll market. And its most important single superiority has been personal solicitation—desk to desk, bench to bench, machine to machine personal solicitation. 71% of all persons on payroll deductions were solicited for the 4th War Loan.

Now, to personal solicitation, add the sales incentive of a definitely established plant quota. Build your campaign around a quota plan. Set up departmental goals. Stress percentage of participation figures. Stimulate group enthusiasm.

In planning your quota campaign, work in close cooperation with the Chairman of your War Finance Committee. Everything is set to make the 5th War Loan drive a huge success—with your help!

(Note: You've read this message. If it doesn't apply to you please see that it reaches the *one* person who can put it in action!)

Here's the Quota Plan:

1. Plant quotas are to be established on the basis of an *average* $100 *cash* (not maturity value) purchase per employee.
2. Regular Payroll Savings deductions made during the drive accounting period will be credited toward the plant quota.
3. 90% of the employees are expected to contribute toward raising the cash quota by buying extra 5th War Loan Bonds: 1—Outright by cash. 2—By extra installment deductions. 3—By extra installment deductions plus cash.

Example: **JOHN DOE Mfg. Co.** — 1,000 Employees

1,000 employees x $100 Regular Payroll deductions during the eight weekly payroll Accounting Periods of June and July = $100,000 Cash Quota

30,000
$70,000 (to be raised by sales of extra Bonds to at least 900 employees)

ORGANIZE • SOLICIT • DELIVER

The Treasury Department acknowledges with appreciation the publication of this message by

PRINTING EQUIPMENT ENGINEER

★ ★ *This is an official U. S. Treasury advertisement—prepared under the auspices of Treasury Department and War Advertising Council.* ★ ★

Official U. S. Marine Corps Photo

This is "Little Lulu", the affectionate title bestowed by its operators upon a portable photo-offset press at an Advanced Pacific Marine Corps Base. The "pressman" here is Marine Staff Sergeant Alfred Wagner, 22, of 456 Tonnele Ave., Jersey City, N. J. Deletions on the press sheets shown in this photo were made by Mr. Censor before the picture was released.

"Little Lulu" is an integral part of an Advanced Pacific Base Marine Combat Outfit

By SERGEANT DAVID DEMPSEY*

**Marine Corps Combat Correspondent. Home address is at 45 Morton St., New York, N. Y.*

A PORTABLE photo-offset press is standard equipment in an advanced Pacific Base Combat Outfit and is doing one of the biggest jobs of behind-the-lines preparation of any piece of equipment at this Marine base. The press is set up to be taken into combat and had already received its baptism of fire when Marines invaded the Marshall Islands.

A crew of four—supervisor, pressman, process cameraman, and layout man—have named the press "Little Lulu" out of respect to its diminutive size (largest piece of work that can be turned out is 9 in. by 14 in.) and her performance.

In every respect "Little Lulu" is a seasoned, indispensable, and respected piece of combat equipment. When preparations for an invasion are under way, last minute aerial reconnaissance sometimes discovers important additions in the defense or layout of our objective. As it is too late to have new maps made at a permanent base, maps are sketched at the division's advanced base and given to "Lulu", which can turn out as many as 500 copies within three hours after receiving the original.

The press is called upon to do a multitude of jobs and probably puts in a longer day than most P-38's or 105-mm. howitzers. A boxing show is planned and an artist designs a poster, in two or three colors. The next day Chief Warrant Officer Arthur N. LaRocque's "combat press" turns out enough copies to blanket the entire camp. Overlays and blueprints are needed for reconnaissance training. In a few hours "Lulu" will have duplicated the originals many times over and a whole division will be "on the march" to the same set of maps. Office forms and printed instructions are also turned out on this field press, eliminating, in part, the slower and costlier method of shipping them thousands of miles from the States.

The great advantage of "Lulu", LaRocque pointed out, is its portability. "It would be impossible to carry a letter press, with its fonts of type, into the field. Photo-offset enables us to turn out everything from instructional booklets to maps on a few hours' notice. It's playing an important but largely unrecognized part in the front lines of this war."

"Lulu's" crew consists of combat Marines. In addition to Chief Warrant Officer LaRocque, who has been with the Marine Corps' printing and lithography department since 1925, at the Depot of Supplies in Philadelphia, three enlisted men are responsible for the press's successful operation. They are Staff Sergeant Marion R. Kingery, 35, of 1526 Blair Ave., Cincinnati, Ohio, formerly employed by the Stevenson Photo Color Co. of that city; Staff Sergeant Paul E. Grigsby, 28, of 6136 Broadway, Indianapolis, Ind., who worked for the Delaware Engraving Co., of Muncie, Ind., and Staff Sergeant Alfred W. Wagner, 22, of 456 Tonnele Avenue, Jersey City, N. J., formerly in the employ of Field and Beatty, New York, N. Y.

—Acme News Photos

Daily Mail

TRANSATLANTIC EDITION

No. 1. WEEKLY DIGEST. LONDON. WEDNESDAY. JANUARY 5. 1944. Five Cents.

'A VERY GREAT EXPERIMENT'

World's First Transoceanic Newspaper is Born

THE 'MAIL' SPANS ATLANTIC

TO-DAY *The Daily Mail* inaugurates a new venture in transoceanic publishing. This experiment has one purpose: as a contribution towards the closer understanding of the British and American peoples.

For the first time in history a great national newspaper in London is setting out to put on the desks of influential people in America an account (in pictures as well as words) of some of the things its readers have been reading in Britain—only two or three days ago.

On Transatlantic aircraft in war-time every ounce counts. It is impossible to transport publications in bulk after they have been printed.

Therefore, this edition, which is a digest of one week's issues of *The Daily Mail*, is set up in England and photographed on to microfilm—the whole issue comes down to the size of a dollar bill. It is then

CROWDED OUT

Train full—no room even for troops on leave. A common scene at a big London terminus.

Bulk of our trains are at work mounting the Second Front. No passenger counts to-day. Picture was taken with infra-red (darkness-piercing) plates. Flashlights are forbidden in black-out.

Railroads at Peak Strain Now to Mount Invasion

BRITAIN'S railways are to-day engaged in the most gigantic transport operation in history—the mounting of a full-scale Second Front. Now that Security barriers are down, some of the facts can be told. The travelling public are bluntly warned that at this crucial stage they "just don't count."

RAF RELATIVES

MILLIONS OF REFUGEES WILL RETURN

SIR HERBERT EMERSON, Britain's High Comm...

A new wrinkle in journalism—Airmail editions of magazines are nothing new anymore, but now they're whisking whole newspapers across oceans on planes. Using the principle of V-mail, the London *Daily Mail* will be flown here on micro-film in a weekly digest edition. Here is the front page of the first edition. You and I won't be able to buy this paper, however, because it is destined only for the "desks of influential people in America" to serve as "a contribution toward closer understanding of the British and American peoples." Among those who will receive the paper are government officials, industrialists, columnists and editors of newspapers and magazines.

1884—Sixty Years—1944

of

Outstanding Service to Newspapers

and

More to Come

"Mindful of the fact that in these sixty years we have invented and developed each of the types of presses in standard use today, the Flat-Bed Web Press, the Unit-type Heavy Duty Press, the Tubular and the Unitubular, the Duplex Printing Press Company is devoting research and engineering toward the offering of post-war press equipment of greatly improved design and construction and resultant efficiency."

Write us and discuss your future needs with us now.

Our factory meantime continues entirely on ordnance and other military equipment save for priority newspaper equipment of emergency character. OUR PRIME JOB IS YET TO "BACK THE ATTACK" AND WIN THE WAR

THE DUPLEX PRINTING PRESS COMPANY

BATTLE CREEK, MICHIGAN

500 Fifth Avenue
New York City

77 W. Washington St.
Chicago, Ill.

AUXILIARY DETENT *keeps end matrices safely within line-composing machine first elevator jaw on wide-measure 4 and 5 pt. lines, especially where considerable recasting is done*

By DAVID J. FOLZ*

**Composing Room Foreman, Standard Register Co., Dayton, Ohio.*

IN certain kinds of Linotype composition where 4 pt. and 5 pt. matrices are cast in wide-measure lines, trouble sometimes is experienced with matrices at the right end falling out of the first elevator jaw, particularly when recasting. There seems to be approx. $\frac{1}{32}$ in. "spring" in a 30-pica matrix line. This pressure of the matrix line against the first elevator jaw spring pawls is sufficient to let one

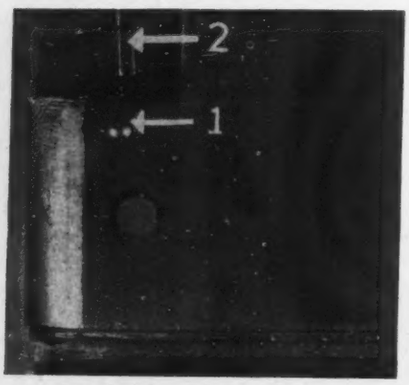


Fig. 1.—Photographic illustration shows auxiliary ball detent *1* protruding from Linotype first elevator front jaw adjusting bar. The auxiliary detent supplements the regular spring pawl *2* in preventing end matrices in a wide 4 pt. or 5 pt. matrix line from crowding beyond the pawl and the detent, especially when recasting.

or more of the end matrices by-pass the pawls, causing complications in normal machine movement in the transfer, normal and casting positions of the first elevator.

To overcome this trouble, the writer has devised an auxiliary steel ball detent for the first elevator front jaw on three machines in the Standard Register plant. These auxiliary detents have been in use for three years during which time the trouble referred to above has been eliminated completely.

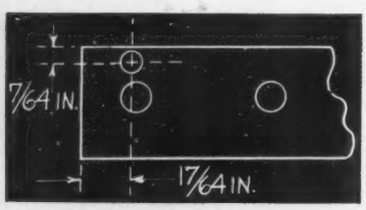


Fig. 2.—This flat diagram represents section of the right-hand side of the adjusting bar and shows location for drilling hole through the bar. Drilling is done from back side (matrix contact side) of the bar.

The auxiliary steel ball detent is positioned immediately under the first elevator front jaw spring pawl and protrudes from the right-hand end of the adjusting bar through spring pressure. When matrix lines are transferred to or from the first elevator the ball contacts each matrix on the front or reference edge just under the upper front lug. Our matrices carry Matrix Contrast Corporation's black and white reference edges. At the time of preparing this article, the steel ball detents have not injured the processed edges of the matrices in any way.

To do its work effectively, the location of the detent must be accurate so matrices will strike the ball simultaneously with the regular spring pawls.

The proper location of the steel ball detent in the adjusting bar seems to have

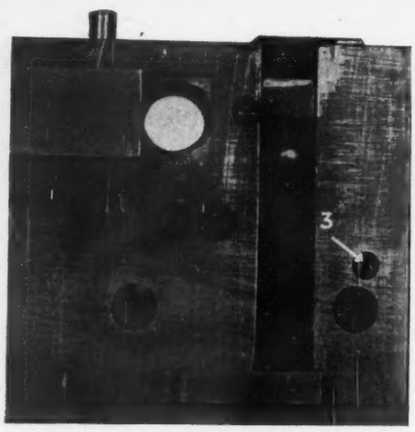


Fig. 3.—View of right-hand section of first elevator front jaw, in which (at *3*) is shown the auxiliary detent spring adjusting screw.

worked out satisfactorily on the three machines equipped with the device. However, in giving the exact location for drilling the hole for the steel ball, I am also suggesting a check measurement which can be followed before actually drilling the hole in the adjusting bar.

It is possible that E-1208 adjusting bar may vary in length, as it appears that the ends of this bar are milled to size and are not ground. Since this endwise measurement may vary, a check as to the exact location for frilling the detent hole in the adjusting bar may be made as follows:

Insert a pica width quad matrix in the first elevator jaws. Push the matrix to the right with the line stop until it comes into contact with the pawls. Hold the matrix firmly in square position and scribe a line on the adjusting bar immediately next to the right side of the matrix body. By measuring from this line, you can obtain the center for the detent hole. Check the center mark with the center mark position which is obtained by the measurements shown in the diagram, Fig. 1.

After the correct position of the hole to be drilled in the right-hand end of the adjusting bar has been spotted, remove the adjusting bar E-1208 from the elevator front jaw. Now centerpunch for location in starting the drill. Using a No. 25 high-speed twist drill, drill through adjusting bar E-1208 from the back surface of the bar (the surface which is contacted by the matrices).

Now, replace adjusting bar E-1208 and spot through the hole into the front

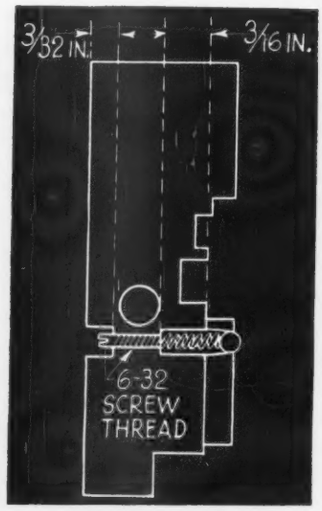


Fig. 4.—Cross-section diagram of first elevator front jaw to which has been applied the steel ball auxiliary detent described in the accompanying article by Mr. Folz.

jaw E-1657 for location. Take off the first elevator front jaw; remove the adjusting bar.

Place the front jaw in the drill press and drill into the jaw from the back side to a depth of $\frac{3}{16}$ in., Fig. 3. Change to a No. 33 high-speed twist drill and drill through the remainder of the jaw to the front side.

Turn the jaw over in the drill press so the front side of the jaw will be uppermost. Enlarge the No. 33 twist drill hole with a No. 25 twist drill to a depth of $\frac{3}{32}$ in., Fig. 3. This partially enlarged hole will allow clearance for insertion of a small screwdriver.

Tap through the No. 33 hole with a tap for 6-32 screw thread. The screw to be inserted should be headless 15-32 in. long.

Before drilling through the adjusting bar and the front jaw, it is well to have knowledge of the following precautions which should be taken to insure good workmanship:

See that the first elevator front jaw duplex rail lever fulcrum pin E-380 is turned up tightly in place, because the No. 33 twist drill which drills the hole through from the back of the jaw will just touch fulcrum pin E-380. So long as

ESPECIALLY TESTED AND PERFECTED FOR BETTER NEWSPAPER PRINTING

A SIGNIFICANT contribution to better newspaper printing has been made by AMERICAN with the successful advent of these new SYNTHETIC RUBBER ROLLERS. On newspaper, magazine, rotary and offset presses they've come through the toughest actual performance tests triumphantly. Demonstrated remarkable endurance. Showed conclusive ink-distributing ability. Proved an obvious faculty for producing sharp impressions. Impervious to inks, driers, solvents, oils, etc. Don't lip . . . hold diameter perfectly in heat, cold, humidity . . . set easily and stay set. Order a set . . . you'll like them.

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225 North New Jersey Street, Indianapolis, Indiana

American SYNTHETIC RUBBER Rollers

fulcrum pin E-380 is turned up tightly when the No. 33 twist drill hole is drilled it can be removed and replaced so its threads will match the detent spring adjusting screw.

High-speed twist drills should be used since the adjusting bar and the duplex rail lever fulcrum pin are hardened and trouble can be avoided by using the high-speed twist drills.

It will be necesssry to ream the No. 25 twist drill hole which you have drilled in the right side of the adjusting bar to permit the $\frac{5}{32}$ in. (0.1562 in. diam.) steel ball to pass through the hole sufficiently to function as a detent for the matrices. Ream through the hole in the adjusting bar from the front with a No. 1 taper pin reamer. Work carefully and do not overream the hole. It is better to ream partially, then try the fit of the ball in the hole several times. The ball should project through the hole a little less than the center diameter of the ball.

Reassemble the elevator jaw parts. Apply the 6-32 x 15-32 in. screw. Secure an assembling elevator matrix retaining strip spring D-3844 and insert it in the hole from the back side of the front jaw. This spring is just about right for supplying proper tension to the ball. Then apply the adjusting bar with the steel ball.

Group of executives on the speakers' stand upon the occasion of presentation of Army Ordnance Flag Award to Ideal Roller & Mfg. Co., Chicago, Left to right, are the following U.S. Army and Ideal officials: L. C. Bollinger, Ideal's assistant secretary; A. L. Fabens; A. Retzke, Ideal's secretary; E. B. Davis, Ideal's vice president; W. A. Lippincott, Ideal's president; Major Donald Bradford; Anton Bialis, who was chosen by Ideal employees to accept the award in their behalf; H. N. Love, Ideal vice president and treasurer, and Lieut. E. R. Piotrowski.

Ideal Receives Army Ordnance Flag Award

ON May 16, Ideal Roller & Manufacturing Company received the Army Ordnance Flag Award with suitable ceremonies at its Chicago plant. The award was given for "outstanding contributions in the field of ordnance production."

Major Donald Bradford made the presentation address, calling particular attention to the part played by the ordnance item manufactured by Ideal in the winning of the campaign in North Africa.

In accepting the award on behalf of the employees, Anton Bialis stressed the different type of reward in which the employees are vitally interested—that of winning the war quickly and having returned to them the members of their families who are now in the service. He also mentioned that two members of the Ideal family are at present in Japanese prison camps.

In the letter announcing the award to Ideal, George B. Vidal of the Army Ordnance Association stated: "As a producer of fuzes for armor-penetrating shells, your company has achieved an outstanding reputation for the quality of your war product. Another factor which has made possible this award has been your success in maintaining monthly production schedules in the face of great pressure and the urgent needs of the Army. In recognition of your achievement you are entitled to fly the Army Ordnance Flag over your plant. Congratulations upon your outstanding performance."

Speakers from Ideal Roller & Mfg. Co. upon occasion of the presentation were W. A. Lippincott, H. N. Love and A. Retzke, the latter of whom acted as master of ceremonies.

Production Manager—Harry Hale

FROM time to time, *Printing Equipment Engineer* likes to introduce printing production and mechanical executives to its readers. Such a personality is Harry Hale, production manager of the Portland (Ore.) *Oregonian*. You've heard of Palmer Hoyt, haven't you? Well, Mr. Hoyt, Business Manager M. J. Frey and the production manager seem to hit it off in fine shape.

Like many other printing executives, Mr. Hale is interested in outside activities. For instance, he has served as director of the Advertising Club, the Lions Club and the Portland Breakfast Club, and for many years was an active member and director of the Multnomah Club and was particularly interested in swimming activities, at which he often officiated.

Harry Hale was born near Adrian, Mich., and attended school in Chicago. He has been a photo-engraver since 1915. He was with the Los Angeles *Times*, then moved to San Francisco,

where he managed the Sierra Art and Engraving Company. Again he moved north, this time to Portland, where he managed the Hicks-Chatten Engraving Company. He then became president and manager of the West Coast Engraving Company, of which he was co-owner, where he had a large following and was reputedly the best photo-engraver on the coast specializing in color process work.

In July, 1936, disposing of his interests in the West Coast Engraving Company, Harry Hale returned to newspaper work as superintendent of *The Oregonian* engraving department, where his skilled craftsmanship and geniality made him an immediate success.

Then in December, 1942, Harry Hale moving up to the newly created post of production manager, where he serves as assistant to Business Manager M. J. Frey. In this capacity, Hale has done an excellent job of co-ordinating the mechanical departments.

VICTORY, besides a goal and an ideal, is likewise a word . . . and words, the right ones, are as important as arms in reaching, and keeping peace. For that reason, we extend our best wishes to those who are attending the annual A.N.P.A. Mechanical Conference . . . for you are among those who play such a vital part in spreading that word.

Burgess will be represented at the Conference to extend those wishes in person. We are always ready to join in stimulating discussion and serve you in work.

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BURGESS
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BURGESS CELLULOSE COMPANY

Manufacturers of Burgess Chrome and Tone-Tex Mats

FREEPORT, ILLINOIS

NEWSPAPER R.O.P. COLOR

equipment after the war—Summaries of informal discussions by three press manufacturer executives

DURING the Pressroom Clinic presided over by Charles W. Noonan of the Providence (R. I.) *Journal*, three executives from as many newspaper press manufacturing companies discussed run-of-paper color printing after the war at the New England Mechanical Conference held in Boston, October 1943.

The three men taking part in the discussions were; F. W. Schnell of R. Hoe & Company, New York; E. W. Worthington, chief development engineer, Goss Printing Press Co., Chicago, Ill., and I. Tornberg, vice president of Wood Newspaper Machinery Corporation, New York. All spoke informally after several newspaper plant pressroom executives had discussed the subject. It seems newspaper plant executives are color-minded but feel that if r.o.p. color is to be a regular thing, proper equipment should be provided. Not having any idea about what the press manufacturers are planning to provide in the way of color printing equipment, Chairman Noonan requested each to speak.

The summaries of each talk are as follows:

Summary of Discussion by
R. W. Schnell, R. Hoe & Co.

THE subject of color in the daily newspaper is an interesting one and has occupied the thoughts of mechanical men and manufacturers for the past fifty years. A great many ideas have been advanced on this subject and a great many press equipments capable of printing color have been built.

The reason for printing color in a daily newspaper is to increase revenue by producing advertisements in color, hoping to make a more attractive appeal to the buyer. Practically all of the newspaper presses in use can be arranged for printing color, and the quantity of color printing desired would govern the amount of additional equipment such as extra printing cylinders, portable fountains, direction rollers, reversing mechanisms, compensators and other parts. This material plus the cost of attaching represents an investment but since this investment is for the purpose of making it possible to increase the advertising revenue, there should not be any question about making it. In other words, to increase your revenue, you must spend money on your equipment to do the job required.

In designing and building new newspaper press equipment, we have considered seriously the reduction of the publisher's investment by attempting to have the press units serve a dual purpose and that is to construct them so that color or black can be printed on any section with minimum trouble in changing from one to another, keeping in mind the expense and the time factor.

For instance, we are arranging our presses with reversing mechanisms, color fountains, direction rollers, so that we can produce unit-to-unit color. The ink pump distribution used on the Hoe press can be built so that it is possible to obtain two different colored inks to the same cylinder, or if necessary, the pump and rail can be arranged so four different inks can be supplied to one four-plate-wide form.

The older method of changing from black to color ink necessitated the cleaning out of the fountain and filling it with the new ink desired. With our method, a master key is provided for shutting off the black ink from one source of supply and opening a key to another source of supply. This eliminates the washing of fountains.

Since the average newspaper press runs about 25% of the available hours, it is a long time investment. Now, with the present status of color, if you were to invest in additional equipment for your press that would be used exclusively for color, and consequently, would be used once or twice a week or when you had a color run, you can readily see that an investment of this sort would not be economical. It is for this reason, as explained above, that all modern press equipment should be designed, as it now being done, to meet these requirements. If you are seriously considering the printing of very much color, you should

(Continued on Page 80)

Determining Line-casting Machine Metal Pot Mouthpiece Temperature

By W. J. BUTLER*

**Union Gospel Press, Cleveland, Ohio*

IT IS admitted by the writer that suggestions for adjusting the temperature of a line-composing machine metal pot mouthpiece must be somewhat empirical in nature because of the peculiar conditions under which the casting mechanisms are operated. In making these suggestions for adjusting the mouthpiece heat source, it will be noticed that no attempt is being made to deal with what really is a complex subject. The writer hopes, however, they will be useful to anyone needing information.

Usually, the face of the slug is examined for "cold" condition of the mouthpiece—that is, the minimum temperature at which the metal can be cast and yet provide clear letter characters. The base of the slug is examined for "heat" condition of the mouthpiece after the slug is delivered into the galley.

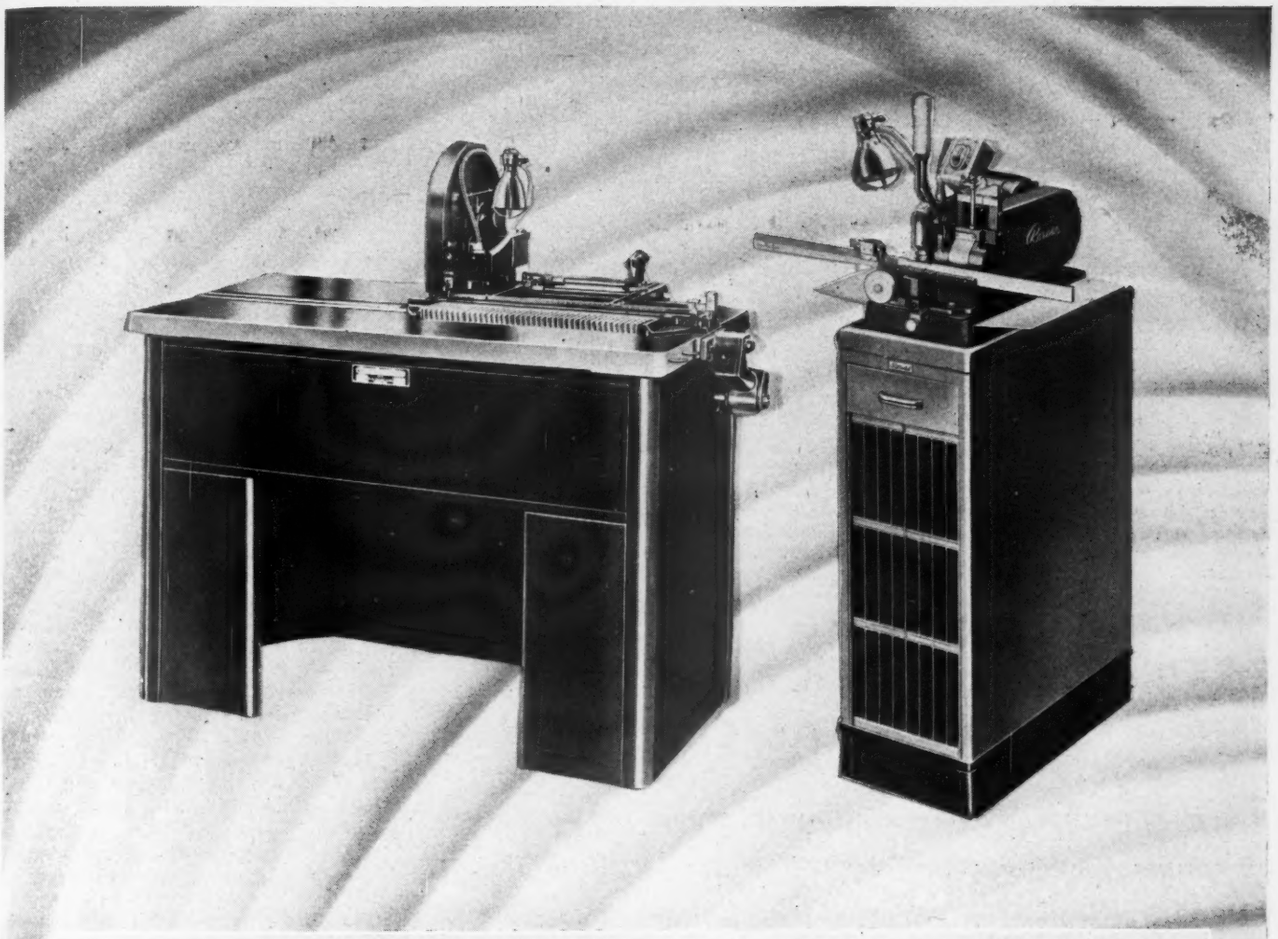
It is a good idea to inspect the bottom of the slug while still in the mold but before the jets and vent sprues have been trimmed off by the back trimming knife. This can be done easily.

The length of the jets (providing the jets are clear and free from burrs) is an accurate indication of mouthpiece temperature. If no jets at all or very short ones appear on the slug, it can be assumed that too much heat exists in the mouthpiece. Long jets, on the other hand, indicate a "cold" or normal heat condition in the mouthpiece, provided the type face is clear.

If you can obtain it, fasten a 6-0 high-speed steel taper reamer in a jeweler's pin vise to clean the jet holes in the mouthpiece instead of a No. 52 twist drill. After reaming the jet holes just sufficiently to remove any burrs, the jets will withdraw nicely from the mouthpiece holes when the pot is withdrawn from the mold, provided there is not too much play in the pot leg bushings.

If some of the jets break off and remain in the mouthpiece jet holes, it may mean that there will be some bad letter characters in the face of the slug cast immediately following. These imperfect characters will be caused by the jets being forced into the mold and against the matrices. If some of the jets break off from the slug and hang partly out of the mouthpiece jet holes, they will melt and run down to be interposed between the mouthpiece and mold at the time of the next lockup. This condition, if it occurs repeatedly, will lead to an imperfect mouthpiece lockup against the mold, and eventually, back squirts.

The lockup of the mouthpiece against the mold can be checked at the time of inspecting the untrimmed slug while still in the mold by noticing whether or not the sprues are well defined or clean cut, or whether metal fins extend between the vent sprues.



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Nearly every composing room faces the problem of getting work out with minimum help. The Rouse Band Saw and the Rouse Vertical Miterer are made for high speed production and positive accuracy. Even though your present equipment seems adequate, you should investigate these two Rouse time savers.

The Rouse Vertical Miterer will cut 1000 miters an hour direct from strip material. Pieces as short as 6 points and as long as 144 picas are cut at equal speed. A patented automatic clamp makes this speed possible. Metal or brass rule up to 24 points thick may be mitered with positive accuracy.

The Rouse Vertical Miterer is profitable equipment wherever speed and accuracy are important.

The Rouse Band Saw automatically selects lengths, and cuts to variable measure a full galley of slugs in 35 seconds. This operation requires no gauge setting, no clamping and no measuring.

Circulars are available giving full details of operation and performance of the Rouse Vertical Miterer and the Rouse Band Saw. Write for them now.

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New Official Board of the Pacific Coast Newspaper Mechanical Conference. Left to right, they are: Edward Conley, San Francisco *Chronicle*, Secretary Northern division; Fred J. Moyer, Los Angeles *Daily News*, First Vice President; Ira Stuck, San Francisco *Shopping News*, President, and Harry Davidson, San Francisco *Call-Bulletin*, Second Vice President.

PACIFIC NEWSPAPER MECHANICAL CONFERENCE

is new name for Pacific Southwest group incorporating executives from extreme western states — Many timely questions discussed at Los Angeles meeting

By FRED J. MOYER*

**Los Angeles Daily News.*

THE ninth annual meeting of the Pacific Southwest Newspaper Mechanical Conference was held in Los Angeles, April 22 and 23. It was highlighted by a roundtable discussion carried on by newspaper executives and representatives of the advertising departments of retail stores. Other notable features were a talk and a motion picture of newsprint; a talk and discussion on plastic plates, and a general roundtable discussion covering most of the problems confronting the mechanical departments.

This conference each year is increasing in its scope. As evidence of this it was voted at the business session to change the name to the Pacific Newspaper Mechanical Conference and will take in all the states west of the Rockies. The next meeting will be held in San Francisco being the first meeting held outside of Southern California. It is understood, however, that the meeting of 1946 will again be held in Los Angeles.

Conference Program

The conference opened with a luncheon tendered the delegates by the Los Angeles *Daily News*, Los Angeles *Examiner*, Los Angeles *Times*, Los Angeles *Herald-Express*, Hollywood *Citizen* and the Los Angeles *Downtown Shopping News*. Manchester Boddy, publisher of the Daily *News*, welcomed the delegates as the men who were doing a necessary job. The out-of-state delegates next introduced were: A. K. Bishop, Ralph R. Henderson and L. E. Otto, of the *Oregon Journal*, Portland, Ore.; Lee Holt, Phoenix (Ariz.) *Republic and Gazette*; P. H. Sanford, Tucson (Ariz.) *Star-Citizen*; Ed. C. Starrett, Albuquerque, (N. M.) *Journal and Tribune*.

30-lb. Newsprint

Newsprint came in for considerable discussion. G. E. Young, vice president of Crown Zellerbach Corp., spoke to the delegates on the paper shortage, explaining that the labor problems and the fact that the government is requiring so great amount are two of the main contributing factors. Paper is being substituted for many other materials but there is no substitute for paper, he claimed. Regarding 30-lb. newsprint, Young was optimistic, claiming the mills were ready to supply it whenever wanted. His talk was followed by the showing of a motion picture, "Hemlocks to Headlines," prepared by the Denver & Rio Grande Railroad.

Advertising and Copy Layout Discussed

After the Saturday evening banquet, at which there were 15 advertising heads from the retail stores as guests of the mechanical group, there was a thorough discussion on advertising copy and layout in an endeavor to iron out some of the difficulties that arise daily.

Plastic Plates

Steve Johnson, of Johnson Mat & Stereotype Company, San Francisco, spoke on the manufacture and use of plastic printing plates. He said there is a lot of confusion about plastic—but he doesn't believe it will ever supplant metal plates completely. It doesn't answer all the problems but he believes it has a great future.

Mr. Johnson answered a number of questions asked of him by both the advertising men and the delegates present, as follows:—

How do these plates affect three-color jobs? It is possible to control the plates. Shrinkage is slight, but there is a minimum. They will not revolutionize the industry, but they do have a place in industry. It can be controlled the same as rubber.

Is there any economy in using plastic? Yes, from the mailing standpoint—the weight is only one-fifth that of an unmounted electro.

Can they be curved and run on a rotary press? No, it would require special equipment to mold them curved.

What would be the advantage in their use, other than shipping? Principally, they are cheaper to ship, quicker to make, and more durable and will stand more impressions from a mat-making standpoint.

Is the cost cheaper than that of an electro? The materials are slightly cheaper, and the time element involved makes the labor much cheaper.

Mr. Johnson had a number of samples which were passed among the delegates and advertising men.

Advertising Discussion

The advertising discussion which followed brought out many interesting ideas as follows:

Engraver—Often, copy comes in late and there is a lot of opaquing and tooling to be done on plates, but the customer does not get it because there isn't time to do it. He suggests that because most artists cut too close to the work, that the advertising people advise the artist when he is cutting to cut as far away as he can. Many times they find if the art work was well prepared they might get it, but otherwise they often cannot.

Chairman—Sometimes they receive cuts that have to be rushed so that the store doesn't get value received because of an improperly etched cut—because of lack of time.

Advertiser—In our cuts should we stick more to black and white instead of benday because of the poorer quality of paper they are getting?

(*Continued on Page 88*)

HATS OFF!

to the American pressmen

Though handicapped by material shortages and the loss of skilled brother craftsmen to the armed services, the "American pressmen" and their assistants have come through this wartime period in a way that merits the highest admiration. So it's high time for "hats off" to the men who keep the indispensable "printed word" in action at home.

Hoe recognizes its responsibilities towards these "heroes of the pressrooms" and will continue to ease their burdens to the full limit of its ability by giving prompt, intelligent attention to all of the servicing problems that may arise.

Back the Attack... Buy more War Bonds

ARMY (E) NAVY

HOE

R. HOE & CO. INC., 910 East 138th Street, New York 54, N. Y.

BOSTON CHICAGO BIRMINGHAM SAN FRANCISCO

WPB Notes

Composing and Typesetting Equipment Industry Advisory Committee

A COMPOSING and Typesetting Equipment Industry Advisory Committee has been named by WPB. David B. Fell, of the Printing and Publishing Division, will be the government presiding officer. Members of the committee are as follows: E. P. Hamilton, Hamilton Mfg. Co., Two Rivers, Wis.; Lee C. Hammond, Hammond Machinery Builders, Kalamazoo, Mich.; Philip P. Merrill, Ludlow Typograph Co., Chicago; George F. Morrison, Milwaukee Saw Trimmer Corp., Milwaukee, Wis.; John W. Reid, Mergenthaler Linotype Co., Brooklyn, N. Y.; Walter A. Sittig, H. B. Rouse & Co., Chicago; E. J. Thompson, Thompson Cabinet Co., Ludington, Mich.; E. O. Vandercook, Vandercook & Sons, Chicago, and G. G. Willnus, Intertype Corporation, Brooklyn, N. Y.

Printing and Litho Platemaking Equipment Industry Advisory Committee Formed

THE Office of Industry Advisory Committees, WPB, announced on May 23 the formation of the Printing and Lithographing Platemaking Equipment Industry Advisory Committee. David B. Fell of WPB's Printing and Publishing Division, has been appointed the Government presiding officer. Members of this committee are: A. W. Cochran, Sta-Hi Corporation, New York; Robert H. Kelley, John Royle & Sons, Paterson, N. J.; John J. Meadth, Lanston Monotype Machine Co., Philadelphia; Frank T. Powers, Jr., Chemco, Inc., Glen Cove, N. Y.; William Recht, Rutherford Machinery Co., New York; R. R. Robertson, of R. R. Robertson, Chicago; Oscar C. Roesen, Wood Newspaper Machinery Corp., New York; and C. A. Thomas, Wesel Mfg. Co., Scranton, Pa.

The first meeting was held May 22.

Technical Meetings . . .

Great Lakes Newspaper Mechanical Conference — Organization meeting of newspaper executives Indiana, Michigan and Ohio only, will be held at Statler Hotel, Cleveland, late Tuesday afternoon, June 12 after adjournment of ANPA Pressroom Session in The Euclid Conference Room. George Fuller, Stereotype Superintendent, Cleveland *Press*, Temporary Chairman.

International Association of Printing House Craftsmen—General Brock Hotel, Niagara Falls, Ont., July 24, 25, 26. President, Harvey Glover, Sweeney Litho Co., Belleville, N. J. Secretary, Herbert Threlfall, 55 Pine St., Providence, R. I.

International Trade Composition Association—Hotel Statler, St. Louis, Mo., Friday and Saturday, August 18 and 19. St. Louis Typesetters' Association will be host. Association's offices: 629 Chestnut St., Philadelphia 6, Pa.

New England Mechanical Conference—Hotel Statler, Boston, October 14, 15. President, Glendon S. Magoon, Fitchburg (Mass.) *Sentinel*. Secretary-Treasurer, Walter C. Crighton, New London (Conn.) *Day*. Program Chairman, Geo. F. Marshall, Production Supt., Portland (Me.) *Press-Herald-Express*.

New Jersey Newspaper Mechanical Conference — Robert Treat Hotel, Newark, N. J., Saturday, November 18. One-day session. George H. Holloway, President, NJPA Mechanical Div., Elizabeth (N.J.) *Daily Journal*.

Northwest Mechanical Conference — This conference has been scheduled to be held in February 1945. Announcement regarding meeting date and city will be made later. President, Al Rosene, Mechanical Superintendent, St. Paul *Dispatch* and *Pioneer Press*; Secretary-Treasurer — Vernon G. Eck, Dunwoody Industrial Institute, Minneapolis, Minn.

Pacific Newspaper Mechanical Conference — (Formerly Pacific-Southwest Newspaper Mechanical Conference)—1945 meeting scheduled to be held in San Francisco—dates to be announced later. President, Ira Stuck, *Shopping News*, San Francisco, Calif.

SNPA Eastern Division Mechanical Conference—St. Charles Hotel, New Orleans, La., October 30-31 and November 1. C. Frank Mann, Chairman. Executive Committee, Louisville (Ky.) *Courier-Journal* and *Times*. Walter C. Johnson, Secretary-Manager and Secretary Executive Committee, P. O. Box 1569, Chattanooga 1, Tenn.

May Use 1¼ Tons Per Quarter

THE magazine paper Limitation Order L-244 has been amended to permit prospective publishers, who did no magazine publishing in the base year, 1942, to use up to 1¼ T. of print paper per calendar quarter for magazine publishing, the War Production Board said on May 24. However, this small amount must be furnished out of the quota of the printer who prints the magazine, officials of the Printing and Publishing Division said.

Magazine publishers who used less than 1¼ T. per quarter in 1942, may increase their paper usage up to that amount if the additional tonnage is taken from the commercial printer's quota under L-241.

"This will not result in an increased consumption of paper", Allen E. Norman, chief of the Magazine and Periodical Section said, "inasmuch as it will merely authorize the diversion of this small amount of paper from the printers' other uses."

Duplicating and Printing Processes Included Under L-241

THE commercial printing Limitation Order L-241 has been amended to include all duplication processes as well as regular printing processes, the War Production Board announced on May 24. This will require a reduction in the consumption of paper by all duplicating plants whether they are trade plant or self-contained plants operating by other types of industry, R. D. Ross, Assistant Director of the Printing and Publishing Division, pointed out. However, persons consuming less than 1¼ tons of paper per quarter will not be affected, he said.

May Use 5 T. of Book Paper Per Year

PAPER Limitation Order L-245, applicable to book publishers, has been amended to permit a person who did no book publishing in the base year 1942, and hence has no paper quota for use in 1944, to use a maximum of five tons of paper per year for book publishing, the War Production Board said on May 24. However, this amount must be furnished from the paper quota of the printer under Order L-241, officials of the Printing and Publishing Division said.

Under the terms of the amended book order, publishers who used less than 5 T. during 1942 may increase their paper usage up to that amount if the additional tonnage is taken from the commercial printer's quota under Order L-241.

"This will not result in a dissipation of paper," Harry F. West, chief of the WPB Book Section and administrator of Order L-245 stated, "since the control is applied, in whole or in part, against the commercial printer under L-241, the limitation order applicable to him."

For the sake of clarity, the title of the order has been changed to read "books and booklets." The more significant

(Continued on Page 89)

Printing Patents . . .

Covering patents issued April 25, May 2, May 9, May 16

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,348,421. METHOD OF BOOKBINDING which permits books to be opened wider and flatter without forcing the pages against the threads. Method includes making a plurality of knife cuts in a stack of sheets to be bound. The cut edges of each sheet are bent into the plane of the neighboring sheet, thereby interlocking the sheets to achieve a degree of cohesiveness in the stack. Filamentous binding material is then looped through cuts along bent edges so that when stack is opened, the binding material presses down on a series of overlapping tongues extending across the dividing line of the stack. Allowance is made in the size of each loop for rounding the binding side of stack, which avoids excessive tension in binding. Invented by Talbert C. Ross, Greenwood, Miss. Assigned by mesne assignments to August W. Halling, Berkeley, Wm. S. Hogan, San Francisco, George Chenu, Sacramento, Eugene Whitten, Palo Alto, Wm. Bassett, Los Angeles, and Richard Greaves, Fresno, Calif., as trustees of the Conference of California I. B. of B. Unions, San Francisco, Calif. Application May 29, 1942. 11 claims.

Composing Room Equipment:

2,347,787. SLUG TRIMMING MECHANISM for typographical casting machine, such as the Linotype. The mechanism furnishes supplementary adjusting means operable, first, to effect a readjustment of the knife for slugs cast with an overhang of a selected width; then to restore the knife to its original adjusted position. This is accomplished by a collapsible device arranged between the knife supporting slide and the active screw stud of the gauge plate. When extended, it is adapted to sustain the knife against the influence of the slide springs in its primary adjusted or slug trimming position. When collapsed, the device permits the slide springs to adjust the knife to its secondary or non-slug-trimming position. Extent of adjustment is determined by an adjustable stop member which engages the knife slide and which may be set according to width of overhang of the type-bearing slugs being cast. Invented by Richard R. Mead, Queens Village, N. Y. Assigned to Mergenthaler Linotype Company, Brooklyn, N. Y. Application March 6, 1942. 20 claims.

Feeding, Folding, Delivery:

2,347,893. APPARATUS FOR CONTROLLING ALIGNMENT of a travelling web of sheet material, such as from or to a bundle roll. The kind of web is not specified but the device is an improvement over the controls shown in patent 1,858,436, for paper and cloth webs. Two bearings spaced apart along a bearing axis, normal to path of travel of web, are adapted to receive journal portion and support roll for rotation. One bearing has a bearing surface part angularly movable relative to remainder of bearing into and out of parallelism with normal bearing axis to thereby adjust axis of rotation of roll. A device is provided for actuating bearing to effect angular adjustment and this is controlled in response to lateral movement of web. Invented by Charles A. Dickhaut, New Brunswick, N. J. Assigned to John Waldron Corporation, New Brunswick, N. J. Application November 9, 1942. 12 claims.

2,348,162. MAINTAINING TRAVELLING WEBS OF PAPER, FABRIC, ETC. SMOOTH and wrinkle-free as they are drawn into a coating or printing press. Separate rollers are provided at each edge of a moving web and forces are applied thereto which tend to pull them outwardly off the edges of the web, causing a lateral tension which serves to pull out the wrinkles and flatten the web without injury. The surface of rollers should preferably have a frictional contact with web and therefore roller surface may be rubber, cork, felt, etc. Pressure between rollers and web may be secured by suction from within a pervious surfaced roller means. Invented by Edgar Warner, Middletown, Ohio. Assigned to The Champion Paper and Fibre Company, Hamilton, Ohio. Application August 25, 1941. 11 claims.

2,348,605. TUCKER BLADE FOR ROTARY FOLDING MECHANISMS for use with the cutting cylinders of newspaper printing presses. To obviate hazards to pressmen, this invention provides novel gear arrangements by which tucker blade follows the same repetitive path, i.e., it is rotated in one direction. The blade length from the axis of the tucker blade shaft to the outer edge is one-fourth the diameter of the circle described by the axis of the tucker blade shaft in its orbit about the axis of the folding cylinder. With proper choice of gear sizes and speed in relation to the folding cylinder speed, the tucker blade may be moved in any desired repetitive path. Invented by Albert James Carpenter, Jr., Battle Creek, Mich. Assigned to The Duplex Printing Press Company, Battle Creek, Mich. Application August 20, 1942. 19 claims.

2,348,821. SHEET DELIVERY MECHANISM for delivering light, flimsy sheets to a printing press, shown as applied to a press of the reciprocating bed type. A reciprocating support is provided for the sheet, the support being movable in a plane slightly below plane of conveyor tapes and adapted to advance over delivery table as sheet is projected from conveyor. Sheet is received on support and maintained in horizontal position while it advances to a position directly over pile on delivery table. Support is then rapidly retracted from beneath the sheet, so that entire area of sheet becomes unsupported practically simultaneously. The sheet then settles vertically onto delivery pile in a flat uncurled condition. Invented by Theodore John Kauffeld, New York, N. Y. Assigned to American Type Founders, Incorporated, Elizabeth, N. J. Application September 4, 1941. 15 claims.

Miscellaneous:

2,347,285. FLUORESCENT PAPER AND PLASTIC PRODUCTS such as glow sheets, bombardier charts, dials, computers, etc., wherein the fluorescent copy is ultraviolet ray responsive and will not readily deteriorate, and upon which notations may be penciled and erased without destruction of the fluorescent copy. Several embodiments of the invention are described. For instance, a paper base is coated with a lacquer which does not fluoresce under ultraviolet rays, this coating then being printed with white opaque or clear pyroxylin ink. While the ink is still tacky, fluorescent pigment of the zinc or casmium sulphide type is dusted over the sheet. Excess pigment is removed and a second protective film is applied. The entire process is adaptable to automatic equipment of the graphic arts industry. Invented by Alfred R. Russell, Grosse Pointe, Mich. Assigned to The Burkhardt Company, Detroit, Mich. Application May 15, 1942. 4 claims.

2,348,630. APPARATUS FOR MAKING PRINTING STAMPS, punches, type wheels, etc. Device will direct a

WARTIME SUBSTITUTE?

The phrase, *"wartime substitute"* is a common one today. It applies to many materials . . . baby carriages . . . even ball players.

Naturally, all of us are very glad to put up with plenty of substitutes in order to help the war effort.

But, photo-engravers are lucky about substitutes. Their favorites Zomo Electric Zinc and A-Z Alloy are the same faultless, pre-war plates, made by the electric induction process, plus several recognized improvements.

These improvements include clean, machine-cut finish without ridges or scratches, plastic Backote (color keyed to gauge). So the next time you need zinc sheets remember to order A-Z Alloy and Zomo Electric Zinc. Your regular metal supplier has *ample stocks to meet your needs right now.*

ZOMO ELECTRIC ZINC A-Z ELECTRIC ALLOY

THE KID SOUNDS OFF ON CLEAN EQUIPMENT

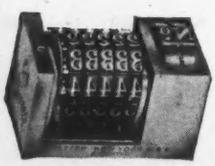
Dear Pop:

Every once in a while I agree with the Sergeant. This time it's on taking care of mechanism. The Sarge doesn't argue about maintenance, or plead with a guy—he lays down the law. You keep your rifle oiled and clean, or else . . .

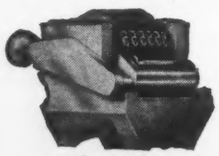
No, Pop, they don't shoot you for having a dirty rifle or mortar, but they get plenty tough. And I must admit, it makes sense. Some lugs expect a lucky star to take care of equipment. There's no telling how the arms would fire at zero hour if the Sergeant wasn't always hard boiled on cleaning and oiling.

Thinking back to our letterpress days, it seems to me some pressroom gangs could use a little discipline on caring for equipment like numbering machines. I'm not saying that lives depend on them, but numbering machines can't be replaced as easily now, and it costs dough when they skip or jam. So you fellows ought to keep 'em clean constantly, keep 'em light-oiled, and replace the worn parts right away. Then you could stall off breakdowns and save the bucks they cost you for more War Bonds.

The Kid



Wetter Lock-Wheel
One of many models



Wetter Rotary
One of many models

WETTER NUMBERING MACHINE CO.
ATLANTIC AVE. & LOGAN ST., BROOKLYN, N. Y.
Sold by all dealers and branches
AMERICAN TYPE FOUNDERS

★ *A Message from the Makers of "STAR" Parts*

Grandiose pictures are being drawn by many of a new era of revolutionary changes after the war.

Technicians and Production men, however, know better. They believe, as we do, that the period immediately following the war will be almost devoid of sensational advance. Rather, the chief benefits derived from war-time production experience by the average manufacturer, will be improved methods of production, and better metal alloys.

In the past we have always taken advantage of the metallurgical advances to put into the manufacture of "STAR" parts, better materials than those generally used.

When the war is won we propose to continue this progress. And also to exert all the ingenuity at our command, as in the past, in the mechanical improvement of those "little" things on your machines which represent the greatest loss of time.

This is our honest — if conservative — message to all our friends of the Newspaper Industry, who patiently fight through these times of trial with us.

LINOTYPE PARTS COMPANY

Weatherly, Pa.
FACTORY—MAIN OFFICE

Kansas City, Mo.
314 WEST 10th STREET

Precision
TRADE ★ MARK
Parts

CHICAGO — MINNEAPOLIS — DENVER

FROM THE MANUFACTURERS OF "STAR" PARTS

light weight projectile provided with a die or matrix at very high velocity against a blank. The matrix strikes the blank only once rather than with a plurality of successive blows and its travel is somewhat similar to the travel of a light weight bullet discharged from a rifle. Invented by Helge S. Jonsson, Villa Park, Ill. Unassigned. Application June 7, 1941. 2 claims.

2,349,163. MECHANISM FOR COLORING ADDRESS PLATES for use in large production addressing machines for magazines. The ink is sprayed in atomized form on the rear surface of the plate lettering so that a coating of coloring is applied over the entire sprayed surface including the depressions formed by the letters and surrounding surfaces. This coating is quickly dried and is then removed from flat surfaces, leaving coloring only in the depressions formed by the lettering and other indicia. The drying of the colored coating fixes it permanently within lettered depressions and at the same time facilitates its removal from flat surfaces. Invented by John Henry Gibbs, Jamaica, N. Y. Assigned to The Reader's Digest Association, Inc., Pleasantville, N. Y. Application July 9, 1942. 4 claims.

Plate Making:

2,347,665. NOVEL LIGHT DISPERSING DEVICE for use in lighting transparencies, such as X-ray film, microphotographic film, and "Kodachrome" transparencies; retouching glasses and tables and retouching and spotting stands such as are used in photography, photolithography, color engraving and drafting. This device reduces the intensity of illumination uniformly over a "flat" field without appreciably affecting the color range or spectrum. The device consists of a casing and disperser. Casing includes an illuminator housing which almost completely encloses the illuminator, preferably a fluorescent tube, and the disperser supporting frame. Disperser is formed of a planar sheet of light conducting material such as glass, fused quartz or transparent plastic, having first and second opposed principal surfaces and an edge portion of substantial thickness. Source of illumination is positioned with relation to the edge portion so as to cast light rays into the edge portion and into light conducting material. A plurality of light reflecting and refracting elements are distributed entirely over each of the surfaces and are disposed in concentration increasing in proportion to the distance from the light source. Disperser has one of its principal surfaces adjacent the viewing orifice in casing to transmit light from the light source outwardly through the viewing orifice. Invented by Geneva Bandy Christensen and Christian Christensen, New Rochelle, N. Y. Unassigned. Application March 4, 1941. 1 claim.

2,348,735. METHOD OF PRODUCING CORRECTED PHOTOGRAPHIC IMAGE in a multilayer photographic material, including a light sensitive silver halide layer for each color separation image to be recorded in the material, and a supplementary light sensitive silver halide layer. The method comprises printing a color separation image to be recorded into each of the first mentioned layers; then printing a correction image into the supplementary layer and developing the latent image thus formed in the supplementary layer. The developed image is thereafter printed into one of the first mentioned layers to correct a color separation image, and the developed image in the supplementary layer is removed from the material. Invented by Bela Gaspar, Hollywood, Calif. Assigned to Chromogen, Incorporated, a corporation of Nevada. Application January 24, 1941. 15 claims.

2,348,771. PLANOGRAPHIC PRINTING PLATE WITH PRINTING FACE OF PURE CELLULOSE, characterized by having a portion in the form of a non-fibrous unifying continuum, by a lateral water diffusion rate of not more than 25 mm. in four hours; by a smoothness of not less than two; by the absence of motile resinous "pitch"; and by a maximum content of resinified extractives of less than 5%. The substance of the face is predisposed to accelerated oxidation, and the surface of the face is then exposed to an oxidizing gas. The exposure of the surface is accomplished by causing the plates to be slightly concave at their printing faces and disposing the plates in face-to-face relation under such conditions that the concavity of face is not entirely obliterated. Invented by William B. Wescott, Dover, Mass. Assigned to Addressograph-Multigraph Corporation, Wilmington, Del. Application January 4, 1940. 21 claims.

2,348,943. PARCHMENTIZED CELLULOSE PLANOGRAPHIC PRINTING PLATE, this patent being related to patent 2,348,771, above. The printing element is cheaper than the previous backed elements, and is said to make it easier to avoid contamination in manufacturing and handling. Invention involves taking two cellulose sheets (each in the process of being acted on by the acid in parchmentizing and at least one being adapted to serve as a planographic printing surface upon washing and drying), and then laminating and cohering these together while under the influence of the acid. The acid is washed from the laminated sheet and the sheet is then dried. The product is admirably suited to be cut into planographic printing plates. Invented by William B. Wescott, Dover, Mass. Assigned to Addressograph-Multigraph Corporation, Wilmington, Del. Application April 28, 1943. 9 claims.

2,348,944. INTEGRAL SET OF MULTIPLE IMAGE COLOR PRINTING PLATES for each color. The multiple plate images for each color are in perfect register with the corresponding plates for the other colors so that the plates for each color can be placed in the press as a unit and can be brought into registry with a minimum amount of make-up time. On each original color plate several reference points are marked and so positioned that they lie on a straight line passed through the plates at right angles to their printing surface when nested with the respective complementary color printing portions in registry. Several mold plates are made from each original mold. On each mold plate the reference points are located in register with original plates. Each plurality of identical mold plates is placed in contiguous spaced relation and secured together with the spacing and alignment of reference points identical for each set of assembled mold plates. Printing plates are made from each set of assembled mold plates. Invented by Jesse Arnold White, Peoria, Ill. Assigned to Muirson Label Co., Inc., San Jose, Calif. Application December 17, 1942. 8 claims.

2,348,983. METHOD OF REPRODUCING ARTISTS' SKETCHES, drawings, etc., which is adapted to the lithographic art as well as that of animated cartoons. The drawing is made upon an opaque sheet with a carbon crayon such as a "Wolff" drawing pencil. The sheet is capable of attaching itself to a transparent sheet of cellulosic derivative. The drawing is then subjected to constant pressure contact with the reverse side of a transparent sheet to form a visible impression of the representation on reverse side of the transparency. A protective film of a transparent fixing agent such as shellac is then applied over the impression. Invented by William B. Justice, Los Angeles, Calif. Assigned to Walt Disney Productions, Burbank, Calif. Application May 26, 1942. 5 claims.

The MORLEY Company

takes pleasure in announcing the acquisition of

The M & M Supply Company
Chicago, Illinois

which, effective immediately will be known as

The M & M Supply Division
of
The Morley Company

makers of

Trutone Newspaper Mats
Trumold Commercial Mats

The MORLEY Company
PORTSMOUTH, N. H.

Printing Inks and Related Chemicals:

2,347,289. IMPROVED PRINTING PASTES FOR TEXTILES which will fully penetrate textiles upon which they are applied. The pastes are formulated using a gum base of incompletely hydrolyzed starches as the thickener and adhesive. Starch gums are prepared by incompletely hydrolyzing starch by heating in water in presence of a hydrolyzing catalyst such as hydrochloric, nitric or sulfuric acid. Corn, rice, sago, potato, wheat, etc., starch may be used. Pastes may be applied to fabric in any suitable manner, including printing by an engraved or embossed roll, brushing, or spraying through stencils or screens. Invented by George W. Seymour, Cumberland, Md. Assigned to Celanese Corporation of America, New York, N. Y. Application October 14, 1940. 6 claims.

2,347,436. PRINTING INK ADAPTED TO DRY QUICKLY to a non-smudging deposit under heat which comprises a pigment dispersed in a liquid vehicle which contains a reaction product of an aminotriazine, formaldehyde and a glycerol sulfide containing free hydroxyl groups, dissolved in an alcohol of boiling point between 220° and 290° C. An example is: glycerol monosulfide, 103.5 grams; melamine, 10.7 grams; 37.5% aqueous formaldehyde, 20.3 grams; and disthylene glycol, 39.3 grams.

Invented by Frank B. Root, Montclair, N. J. Assigned to Ellis-Foster Company, a corporation of New Jersey. Application February 21, 1942. 4 claims.

2,347,633. NEW ORGANIC PHOSPHORUS CONTAINING COMPOUNDS useful as surface tension modifiers, emulsifying, wetting, dispersing and spreading agents for dispersing pigments in printing and lithographic inks, paints, etc. An alkyl aromatic phosphinic acid is prepared by reacting dodecyl benzene with PCl_3 in the presence of $AlCl_3$. Mixture is refluxed for five days, then extracted twice with 2 liters of hexane. Extracting solution is then vacuum concentrated. Residue is poured on ice and neutralized with NaOH. The product is dodecyl benzene phosphinic acid. Invented by Gennady M. Kosolapoff, Dayton, Ohio. Assigned to Monsanto Chemical Company, Akron, Ohio. Application May 7, 1941. 11 claims.

2,347,678. IMPROVED AMYLACEOUS COMPOSITION useful in preparing emulsion-type inks (in which pigment particles such as carbon black are used) that can be employed for intaglio printing, and also useful as a wetting and dispersing agent in forming emulsions and coating and impregnating compositions for treating fibrous material such as paper, cloth, leathers, etc. Composition is suitable for emulsifying substances such as oil, resins, waxes, etc., and as a wetting agent for dispersing pigment particles in the preparation of paints, lacquers and enamels. It consists of a water-insoluble substance selected from the group consisting of oils, bituminous substances and waxes, emulsified with a product comprising an aqueous colloidal suspension of sodium starchate. Invented by Kenneth M. Gaver, Columbus, Ohio. Assigned to The Komel Corporation, Dayton, Ohio. Application February 15, 1941. 6 claims.

2,347,679. LIQUID CLEANING AND POLISHING COMPOSITION comprising an emulsion of wax in water including sodium starchate as an emulsifying agent, and having uses similar to those in preceding patent, this being a division of the application for that patent. Example of the emulsion: 50 parts by weight of paraffic wax, 25 to 40 parts of stearic acid, and 5 to 10 parts of sodium starchate. Invented by Kenneth M. Gaver, Columbus, Ohio. Assigned to The Komel Corporation, Dayton, Ohio. Original application February 15, 1941. Divided and this application October 18, 1941. 6 claims.

2,347,680. OIL AND DISPERSED PIGMENT emulsified with an alkali metal starchate such as sodium starchate, this being a division of application for patent 2,347,678, above, and having uses similar to those of the two preceding patents. Invented by Kenneth M. Gaver, Columbus, Ohio. Assigned to The Komel Corporation, Dayton, Ohio. Original application February 15, 1941. Divided and this application October 18, 1941. 9 claims.

2,348,594. PRINTING INK especially useful in printing bread-wrappers or other products which must be waxed and subsequently sealed. The present ink is said to be superior to the wax-set ink described in Mock patents 2,081,949 and 2,086,428 in that it is less expensive and has no adverse effect on the sealing of the finished bread-wrappers. It is also said to be superior to the water-setting ink described in Gessler patent 2,159,385 in that it prints dependably in highly humid weather and can be used on all types of rollers including glue glycerine rollers. The ink comprises a pigment such as titanium dioxide, ultra marine blue or chrome yellow, etc., dispersed in a vehicle with non-volatile constituents essentially of from 25% to 60% sulfonated fatty material, and from 75% to 40% of water-insoluble film-forming agent soluble in the fatty oil. The latter agent may be a mixture of a hydrogenated rosin and tall oil in such proportion that the resin predominates. The ink has relatively slight odor, may be waxed immediately after printing, and has no harmful effect on the sealing characteristics of the finished bread-wrappers. Invented by Dominic J. Bernardi, Bronx, N. Y. Assigned to Interchemical Corporation, New York, N. Y. Application November 14, 1942. 4 claims.

2,348,708. PRODUCTION OF IMPROVED DRYING OILS useful in printing inks, paints and varnishes for metal surfaces, etc. A better product is said to be obtained by extracting the crude penta- or dipentaerythritol esters formed by the reaction of penta- or dipentaerythritol with higher fatty acids or their triglycerides with an aliphatic alcohol of from 1 to 3 carbon atoms. Soya bean oil acids and dipentaerythritol are heated in a flask having an agitator, a CO- inlet tube and a condenser for water. After eight hours of heating and further processing an emulsion is formed which quickly separates into two layers. Invented by Theodore F. Bradley, Stamford, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application March 4, 1941. 6 claims.

2,348,710. ALICYCLIC ESTERS of alpha-hydroxyisobutyric acid and hydroxy substituted derivatives thereof, useful as solvents for resins, lacquers, inks and coating compositions; or as plasticizers for cellulose acetate, cellulose propionate and synthetic resins. The products can be prepared by reacting an alicyclic alcohol, such as cyclohexanol, with an acid at elevated temperatures, in the presence or absence of a catalyst such as sulfuric acid or p-toluene sulfonic acid. They may also be prepared by the ester interchange method or by reacting alicyclic halides with an alkali metal salt of alpha-hydroxyiso butyric acid. Invented by Coleman R. Caryl, Riverside, Jack T. Thurston, Cos Cob, and Donald W. Kaiser, Springdale, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application November 6, 1940. 4 claims.

2,349,061. PREPARING SURFACE-ACTIVE ALIPHATIC MONOCARBOXYLIC ACID-MONOALKYL CYANAMIDE CONDENSATION PRODUCTS, useful in the formulation of printing ink, as wetting agents, emulsifying agents, detergents, plasticizers for soap, softening of textile fabrics, wool, cotton and rayon, as demulsification agents for oil emulsions, as cationic flotation agents, dye dispersants, and for fat-liquoring of leather. An aliphatic monocarboxylic acid having at least four carbon atoms, such as butyric, caproic, lauric, palmitic, stearic or oleic, is reacted with an aqueous solution of a noncalkylol cyanamide at temperatures in range of 80-100° C. Invented by Robert F. Uncles, Stamford, and Kerwin K. Kurtz, Old Greenwich, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application March 24, 1942. 4 claims.

2,349,089. TETRA-DIAZONIUM DERIVATIVE of the phthalocyanine series stabilized in solid form by salt formation with an aromatic sulfonic acid. The derivatives are useful in dyeing textile fibers and may be applied to and developed on the fiber with various azoic coupling components. The diazonium derivatives may also be coupled to the azoic coupling components in a reaction vessel, producing the corresponding pigments in substance. This and the two following patents are continuations-in-part of application for patent 2,280,072. Invented by Norman Hulton Haddock, Blackley, Manchester, England. Assigned to Imperial Chemical Industries Limited, a corporation of Great Britain. Application August 30, 1941. 2 claims.

2,349,090. POLYDIAZONIUM COMPOUND of the phthalocyanine series useful in dyeing and printing textile fibers. The compound is stabilized in dry form by reaction with an inorganic compound from the group consisting of polyvalent-metal halides and fluoroboric acid, and is characterized by its solubility in water and its direct dissociation therein to liberate a phthalocyanine polydiazonium cation. Example: the zinc chloride double salt of copper tetradiazo phthalocyanine. The products may be incorporated into printing pastes to be used for printing cotton fabric which has been previously padded with an ice-color coupling component. Invented by Norman Hulton Haddock, Blackley, Manchester, England. Assigned to Imperial Chemical Industries Limited, a corporation of Great Britain. Application May 19, 1942. 5 claims.

2,349,091. STABILIZED DERIVATIVE OF A POLYDIAZONIUM COMPOUND having similar uses as above patent 2,349,090, this being a division of application for same. The compound is formed by reaction with a member of the group consisting of strong alkalis, amines containing water-solubilizing groups (capable of forming diazoamino compounds), and sodium bisulfite. It is characterized by its solubility in water without forming a diazonium cation. Invented by Norman Hulton Haddock, Blackley, Manchester, England. Assigned to Imperial Chemical Industries Limited, a corporation of Great

NEW!...for commercial printers...after the war!

For nearly 15 years, progressive newspapers have profited by the use of the Teletypesetter method of machine composition. Now this speedy, money-saving system has been adapted to the needs of book and job printers by the new *Multiface Perforator*.

As its name implies, this special keyboard tape perforator is not restricted to unit matrices, but handles all the popular type faces run on standard line composing machines from 5 to 14 point sizes. Brain of the unit is the counting mechanism which indicates the length of each line as it is perforated with uncanny accuracy. It's only a matter of seconds to adapt the machine to a different type face.

For its speed, accuracy and cost-cutting opportunities, Teletypesetter — with the new *Multiface Perforator*—should be considered in the post-war plans of every progressive commercial printer. The system is not an experiment—it has been in daily use for more than six years in several commercial plants.

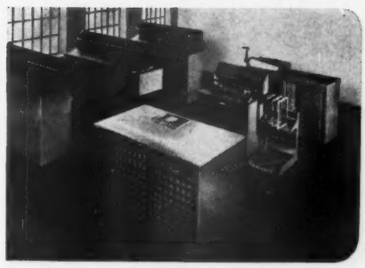
Get the complete story. Write today to TELETYPESETTER CORPORATION, 1400 Wrightwood Ave., Chicago 14, Illinois.

During the 5th War Loan Drive, buy more Bonds than ever!

TELETYPESETTER
REG. U. S. PAT. OFFICE

THE ARSENAL
OF THE PRESS ROOM

Back of the Army's guns there must be an efficient arsenal for production of ammunition. Guns cannot shoot without shells.



Presses cannot print without type forms and back of every pressroom must be a composing room capable of delivering good printable forms promptly. This requires the best equipment and skilled workmen armed with the most efficient tools to enable them to produce at low cost.

The necessity to overcome by human effort the inefficiencies of equipment is a common cause of composing room losses. Older equipment that still looks good is often out-dated and unsuitable to modern conditions where high costs are a serious menace to profits.

Support your presses with a composing room adequately equipped with Hamilton furniture. It will help to stop many hidden losses.

HAMILTON
MANUFACTURING COMPANY
TWO RIVERS
WISCONSIN

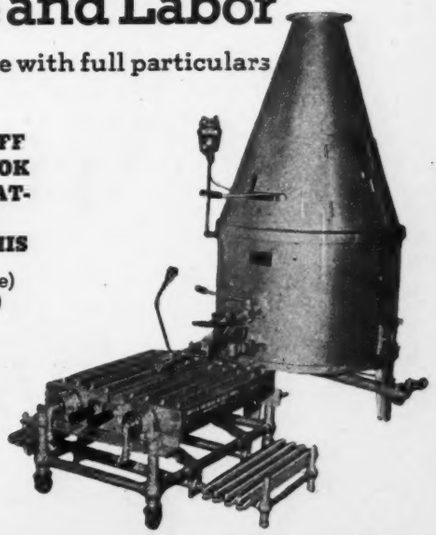
THE JORDAN CONTINUOUS FEEDER
(saves time and labor)

UNITED AMERICAN METALS CORP'N
AND AFFILIATED CORPORATIONS
200 Diamond St., Brooklyn (22) N. Y. 4101 Curtis Ave., Baltimore (26) Md.
2246 W. Hubbard St., Chicago (12) Ill.
785 Bryant St., San Francisco (7) Calif. 2248 E. 25th St., Los Angeles (11) Calif.

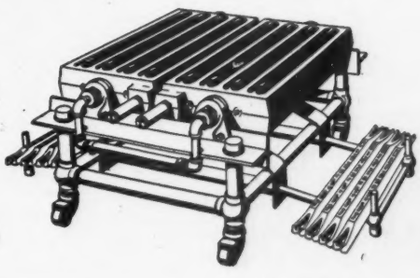
They save Time and Labor
Write for our illustrated Catalogue with full particulars

LITTLE CHIEF REMELTER
(saves time and labor)

SLIPS OFF THE HOOK AUTOMATICALLY LIKE THIS
(saves time) and labor)



BIG CHIEF REMELTER
(saves time and labor)



TWINTYPE WATER-COOLED MOLD
It casts the DOUBLE-EAR SLIP-OFF INGOT
(saves time and labor)

as fine a type metal as is made
UNITED AMERICAN

Britain. Original application May 19, 1942. Divided and this application May 19, 1942. 9 claims.

Printing Presses and Equipment:

2,347,619. IMPROVED INKING MECHANISM for rotary printing presses. A pair of printing couples are provided through which a web of paper is led for printing on both sides of web. Ink is applied to the printing plates on the form cylinder of each printing couple. This mechanism comprises an ink fountain with a fountain roller positioned in the ink supply, an ink drum of large diameter, and various transfer rolls for conveying ink from fountain rollers to ink drum and from ink drum to form cylinder of printing couple. Invented by Auburn Taylor, Charleston, W. Va., and Emory W. Worthington, Chicago, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application April 21, 1942. 23 claims.

2,348,862. REGISTRY CONTROL APPARATUS for automatically maintaining moving webs of sheet material in position. Device is useful in multicolor rotogravure printing. Apparatus comprises light sensitive means associated with a web for determining the position of a preconditioned portion of web; and also light sensitive means for predetermining the forward and rearward limits of tolerance of the position of the preconditioned portion relative to the rotative position of element. The relationship between element and web is adjusted when the position of the preconditioned portion of the web is not within limits of tolerance. Invented by Morris Sorkin, New York, N.Y. Assigned by mesne assignments to The Fred Goat Co., Inc., Brooklyn, N. Y. Application February 27, 1940. 18 claims.

2,348,870. ROTARY MULTICOLOR INTAGLIO PRINTING PRESS and method of feeding a web therethrough. A horizontally disposed printing couple is mounted in a pair of horizontal members of a printing unit frame. Rollers for directing the web into the printing couple are journalled in a supporting structure above printing couple and frame. Supporting structure is movable with frame and preferably is adapted to be swung or moved to an inoperative position, thereby to permit ready access to the printing couple and easy removal of printing cylinder. Rollers may be provided below printing couple so that printed web may be led, with the printed surface free from contact with any other surface, to the rollers in the movable supporting structure of the next adjacent printing unit and thence to the printing couple. Invented by Arthur M. Wickwire, Jr., Mountain Lakes, N. J. Assigned by mesne assignments to The Fred Goat Co., Inc., Brooklyn, N. Y. Application July 5, 1940. 10 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

1854 • 1944

Blatchford's 90th ANNIVERSARY

TYPE METAL

★

FLUX

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BASE

E. W. BLATCHFORD CO.

Branch of NATIONAL LEAD CO.

63 PARK ROW, NEW YORK 900 W. 18th STREET, CHICAGO

Newspaper R. O. P. Color

(Continued from Page 70)

seriously consider investing in new machinery with the latest and improved methods of reproducing color.

Summary of Discussion by E. W. Worthington, Goss Printing Press Co.

MR. SCHNELL has comprehensively outlined some of the press manufacturers' thoughts for the post-war period. It appears to us that about 75% of the equipment being placed on order, will be equipped with color units or color fountains, and many will be built providing color by portable fountains. Portable color fountains have been in practical use for many years.

The advantage in using these portable fountains, was brought to our attention eight or nine years ago, by Auburn ("Bulldog") Taylor, Pressroom Superintendent of the Charleston, (W. Va.) *Gazette*. I cannot speak to you about the continuous feed fountain without telling you something about the fellow who developed it. I have known "Bulldog" Taylor for many years, and we have worked very closely together on many problems. "Bulldog" is somewhat like the story of the bumblebee. If you will inspect a bumblebee, you will find its body is extremely large for its wing area. It would almost appear that the bumblebee's wing area is far too small for the weight of its body; and it appears that the bumblebee could not fly, according to laws of anadynamics; but a bumblebee does not know anything about such complicated laws . . . and flies any way: So it is with our friend, "Bulldog", in regard to press design. He has accomplished many unusual things that are not "according to Hoyle". He possesses one of the foremost inventive minds in the newspaper field today, and is constantly striving to make an improvement in press equipment.

A very unusual thing about this fountain is, that it seemed to possess a quality that was lacking in some of the other inking systems. It was found that the color was the same at slow speed as it was at top press speed. Once the color was set, it remained fairly constant. The principle of operation of this fountain, is very simple. In one way, it is unfortunate that the press manufacturer did not think of it himself. It is nothing more or less than a spiral roller, the rib on which interferes with a heavy, regulated film on the fountain roller. The fountain blade is spaced quite a distance from the foun-

CONVENTION MESSAGE

This year, as your convention call sounds for a war time meeting, we salute you with the same Wood Flong good wishes that have come down through the years since 1915. Many discussions will be held on war time economies, changes in format, and new methods of reproduction. As these various problems arise we hope you will discuss them with us. At all times you can depend on our representatives for top flight service and advice — and on Wood Mats for top flight newspaper reproductions.

WOOD FLONG CORPORATION HOOSICK FALLS, N. Y.

New York City Office . . . 551 Fifth Avenue

WOOD DRY MATS

Will YOUR Plant be Ready?

to give *Service*

Your customers tomorrow, eager to find new markets for their products, will demand faster and better service than ever from your printing shop. Monomelt type handling systems get every job out faster and save labor, too. Ask for details about Monomelt.

Monomelt offers automatic melting, feeding and handling of type metal for all casting machines. Assures sharp slugs, faster operation, continuous recasting and 75% less drossage.

...*Quality*

Solid, sharp-faced slugs on every cast are assured with Monomelt. This means better printing quality to help customers present more vivid sales messages. Plan to give better quality printing with Monomelt.

...*Economy*

When you speed up machine operation, eliminate pigging and cut operating costs with Monomelt—yet deliver better printing in less time—you're offering your customers everything they can ask. That's the way to keep them satisfied and win new business for your printing plant, too.

Write for details about new Monomelt services for the printing trade!

WATCH for NEWS about Monomelt equipment for making electros from plastic molds!

MONOMELT COMPANY 1611 Polk Street, N. E. Minneapolis 13, Minn.

tain roller, which is a good idea in case something foreign gets into the ink. This fountain seems to disregard some of the laws of dynamics and picks up ink in direct proportion to web speed. This is extremely interesting, because almost all of us have been working with an intermittent ink supply, such as a ductor roller that oscillates back and forth. With the continuous feed fountain, you actually do not need the large storage system that is necessary for intermittent feed, because the ink supply is continuous, and you pick up a relatively large proportion of ink in helical stripes which overlap on the lower drum to give you a very good film of ink before it gets to the distributor mechanism.

Many pressroom executives are asking: "What can I do with my existing equipment, to print color?" Many of the smaller pressrooms have been using portable color arrangements, or types of similar color attachments built by the manufacturers. We have been making portable color devices for some time, and they can be applied to the existing presses. Some of the metropolitan dailies and many of the smaller pressrooms, are equipped with reversible units, and use these portable fountains in conjunction with them, and have obtained some very fine color printing. Some of the larger metropolitan papers in the midwest make use of fixed position double center colors, superimposed on a reversible printing unit, in conjunction with a black half deck. They can run color in almost any spot in the paper with such an arrangement, by the use of reversible bars with bay window rollers.

As far as the press manufacturer is concerned, he knows that most of the publishers are going to insist on color facility for their presses during the post-war period. We do not know whether or not national advertisers are going to insist on color ads, but many publishers are preparing for it. The new press designs will permit putting color on any page. They will be constructed so that color arrangements are built in as part of the press equipment, and do not take any more space than your present presses. Such color arrangements will be within the confines of the press frames, so that it will be more convenient to work around the press. It appears that much of the color will be run by the use of simple angle bar arrangements, and there is a good economic reason why you would want your presses equipped in this way.

One of the main things which has held back effective color printing in newspapers is, that proper press facilities have not been available. The problem concerning color plates is generally understood, although special equipment must be obtained, or certain alterations made, in order to cast and trim the plates accurately.

For your post-war color requirements, consider the continuous feed color fountain, and the advantages of portability on existing equipment. In eight cases out of ten, it can be applied to your existing equipment to give you a start in color printing.

The press manufacturer is aware of the many problems in connection with color printing, and we are making every effort to keep up with the times. It is our business to make equipment for the pressroom that is easy to operate and easy to maintain. When we take into consideration, the demand to produce color printing that will run at high speeds, with fine quality, it has been and will be no easy task for any of us. The press manufacturer has plans to meet the flexible requirements of high speed r.o.p. newspaper color printing.

Summary of Discussion by
I. Tornberg, Wood Newspaper Machinery Corporation

WHILE I missed the able explanation of color printing by Mr. Schnell, I did hear Mr. Worthington. I agree with him. I took a trip around the country recently and visited many newspaper offices. Many of the publishers wanted me to tell them what the future has in store for them in the matter of color. They said they were very much disturbed about the future of the newspaper holding its own in the advertising field where millions of dollars are being spent for advertising goods which are essentially

AUTHORIZED REPRESENTATIVES

CHICAGO:
Chemco Photoproducts Co.
NEW ORLEANS:
Chemco Photoproducts Co.
ST. LOUIS:
Mid-West Photo-Eng. Supply Co.
WASHINGTON, D. C.:
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RICHMOND, VA.:
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BOSTON:
Allan B. Croke Co.
BUFFALO:
C. S. Illingworth
DETROIT:
R. L. Porter
CINCINNATI:
G. C. Dom Supply Co.
AKRON:
Metzger Photo Supply Co.
SAN FRANCISCO:
J. W. Feinstein
ATLANTA:
Chemco Photoproducts Co.

Thompson-Hayward Chemical Co.
DENVER, MINNEAPOLIS, TULSA, WICHITA, MEMPHIS, DALLAS, OMAHA, KANSAS CITY, OKLAHOMA CITY, DES MOINES, HOUSTON, SAN ANTONIO

TRIPLEMETAL IS CHEAPER

Increased production of this remarkable tough fine grained alloy has enabled Edes to reduce prices on all gauges. Triplemetal is a "natural" for school annuals.

EDES
The Standard Never Equaled

THE EDES MANUFACTURING CO.
PLYMOUTH, MASS., U.S.A.
EST. 1850

EDES ENGRAVING METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

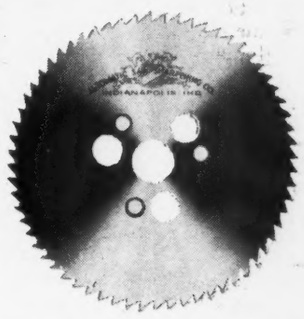
SAWS SHARPENED

by Automatic Machines

Any Make

- **Composing**
- **Stereotype**
- **Engravers**

Saws Sharpened to Give Better and Longer Service



Saws and Knives Sharpened and Returned the same day received.

SHARPENING PRICES

Book of 10 Sharpening Coupons $6.00 or 75c per saw (we pay Return Postage)

NEW SAWS

(for Any Make Machine)

Prices and Trade-In Plan

SAWS CAN BE FURNISHED FOR LINOTYPE, STEREOTYPE, ZINC, ELECTROTYPES AND WOOD

5 and 5½ in. saws.....$3.00—with old saw traded in $2.25
6 in.....$4.00—with old saw traded in $3.00
6½ to 7 in.....$4.50—with old saw traded in $3.35
8 in.....$4.00—with old saw traded in $3.75
10 in.....$6.25—with old saw traded in $4.60
Trimmer Knives, ea. .50, Band saws for Rouse machines $1.00

Manufacturer of

DIXON'S MOLD POLISH

(the polish is black)

A Polish and Lubricant for Linotype, Intertype and Monotype Molds, etc.

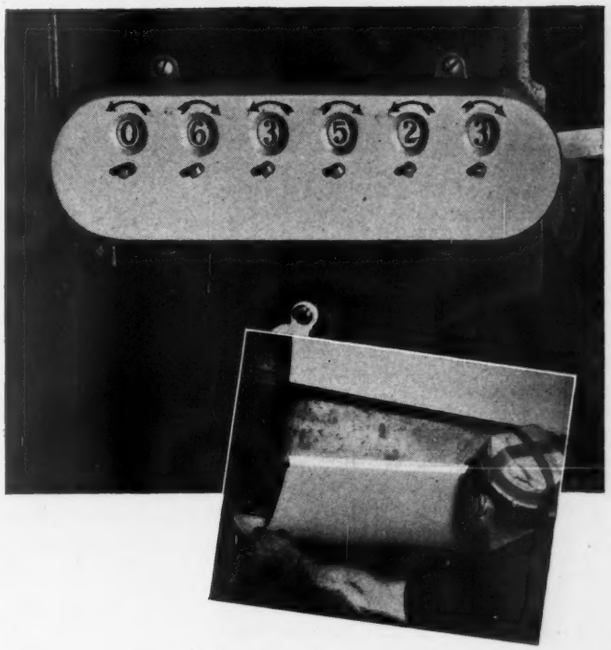
Dixon's Mold Polish quickly cleans and polishes, leaving a mirror-like lubricated surface, eliminates stuck slugs and strain on the machine, and increases production. Sold by Mergenthaler Linotype Agencies or

Automatic Saw Sharpening Co.

735 E. Ohio St., Indianapolis, Indiana

SPHEREKOTE
TYMPAN COVER

...glass bead coated



The End-of-the-Day Count TELLS THE STORY!

You can keep your presses running more steadily with SPHEREKOTE, the new tympan cover. SPHEREKOTE's glass bead coated surface picks up so little ink that two-side jobs can be backed up immediately without offsetting. Perfectors can be operated at top speed without smearing or smudging. The result is cleaner, better printing . . . fewer press stops to clean up the tympan . . . and more impressions per day. To see how easily your pressroom can profit from these advantages, mail the coupon below today for complete data.

MINNESOTA MINING AND MANUFACTURING CO.

GENERAL OFFICES: SAINT PAUL 6, MINN.
BRANCHES IN PRINCIPAL CITIES

★ BUY MORE WAR BONDS! ★

Minnesota Mining & Manufacturing Company PE-644
Saint Paul 6, Minnesota

Please send us complete information on SPHEREKOTE glass bead coated tympan cover.

Name_____

Firm_____

Address_____

City_____ Zone____ State_____

produced in color. Originally, the newspaper alone was available to the advertiser. Now he has to contend with magazines and television—which show the advertised article in its true colors. What will the newspaper have to offer?

Publishers feel, and with good reason, that they will not stand up in competition with the other two media. It is true, of course, that they are operating in different fields. The magazine uses more expensive paper, more expensive ink, whereas the newspaper does not have the facilities or the time to meet this competition.

In order to help the newspaper publisher keep his place in the advertising field, we must not delude him with these color fountains or other gadgets which we have just heard discussed. It was suggested here a little while ago that you take an old press, never designed for color, buy an extra fountain and you will then produce color with which the publisher hopes to capture some of the money being spent in advertising. Anything done this way is in my estimation very poor practice. That sort of work will not permit the newspaper to maintain its position in the advertising field.

We of the Wood Company think of the future of color in terms of suitable machinery to take proper care of color.

I talked rather plainly to newspaper executives and told them that they must not ask you men to print color of competitive quality through the use of ingenuity or sweat only and do something which cannot be done because you have not been provided with something to do it with.

First, they must get a press upon which color will be printed in good register, which has up to four separate plate and impression cylinders, grouped around a single gear, and wherein each couple is reversible independent of the others. This eliminates misregister because of the short paper lead and the elimination of gear back lash. All registering time must be taken from the presses and placed where it belongs—by providing you with color plates that are preregistered on equipment which will be available after the war. You must also be given means for changing ink quickly from black to color and back again, thereby reducing ink waste and wash-up time.

I think it is a mistake to try to give you and your bosses the idea that by merely attaching a fountain here and there you will be put on a color basis. It will only be a makeshift, at the best. With such equipment you cannot compete with people who spend thousands and thousands of dollars upon a quality job of color printing, meaning the magazine and television competition. Your publishers must be convinced that they must face the future courageously by giving you men the technological means with which you may use your craftsmanship to produce a truly competitive color job.

Printing Equipment Engineer is always glad to help you find source of supply—just write us.

Link Discusses

(Continued from Page 52)

Have we reduced the size and amount of wrappers used in mailing rooms to the minimum?

Are we re-using envelopes for inter-office communications?

Do we make memo pads of discarded forms that have printing on one side?

I would suggest that your publisher appoint a paper saving committee to make a study of all possibilities in your plant. If he does the results may surprise him.

Are there hundreds of pounds of paper in old useless records in your plant, records which are of no value but are kept in storage just because you have always kept them?

Check your plant from basement to roof and salvage all you can and what is still more important, try to induce every institution in your city to do likewise.

We have seen the 9 col. newspaper in whole or in part. We have left folio lines off of pages. We have reduced and redesigned heads. Some have adopted smaller slugs for news type and some are using smaller type. Nearly all are editing news closer than they were before the restrictions. Some features have been eliminated and many newspapers, particularly the larger ones, have reduced the number of pages printed. Some are

We have learned

A LOT IN 140 YEARS

We have learned how much a modern setup helps in plant, equipment and research. We have learned to meet all kinds of conditions, booms, depressions, war and peace. That is why printers know they can depend on the quality of Johnson Inks.

CHARLES ENEU Johnson AND COMPANY

GOOD INKS SINCE 1804

Philadelphia • New York • Chicago • Boston • St. Louis • Cleveland
Detroit • Baltimore • Kansas City • Pittsburgh • Atlanta • Dallas

The plant that standardizes on the

CUSHMAN (OFFSET) MOTOR

stays out of trouble!

★

Parts Catalog and Instruction Book now available

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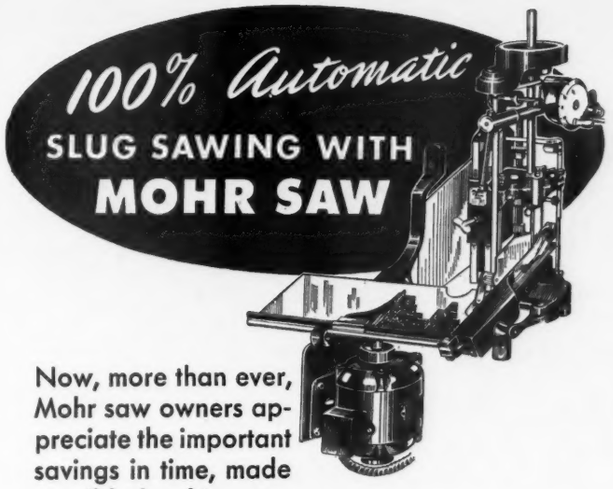
Cushman Motor Division

LINOTYPE PARTS COMPANY

WEATHERLY, PENNA.



Now, more than ever, Mohr saw owners appreciate the important savings in time, made possible by this automatic slug saw. Slugs are cut to any desired length as they are ejected from the linecasting machine. 100% automatic operation. Accurate and speedy.

Write for information about the Mohr Measure Control Unit — the quick, measure designing feature which makes possible instant and precise adjustment of slug length.

MOHR LINO-SAW COMPANY
126 N. Union Avenue Chicago 6, Ill.

KIMBLE

CUSTOM-BUILT MOTORS

FINE CUSTOM-BUILT MOTORS
FOR THE GRAPHIC ARTS
INDUSTRY SINCE 1904

KIMBLE ELECTRIC
Division of Miehle Printing Press & Mfg. Co.
2003 WEST HASTINGS STREET
CHICAGO 8, ILLINOIS
DISTRIBUTED BY: AMERICAN TYPE FOUNDERS

using lighter weight paper and orders indicate an increase in the amount that will be used. Some have reduced circulation and many have either eliminated or reduced returns. We have observed many typographical gymnastics. In my opinion, some of the freakish ones might be classed as illegal operations.

It seems that every idea that has been put into effect has been called a paper conservation move. The only way to save paper is to use less of it and waste less. Some of the changes newspapers have adopted may have been designed to increase revenue. The War Production Board's job in this connection is to save newsprint and pulp and we have, or desire, no other form of control.

For a moment I want to step out of the category of a War Production Board representative and speak as a newspaper man talking to newspaper men. Let me caution you against making unnecessary changes in the appearance of your newspaper which cause it to be less appealing to the advertiser and reader. Some of the printed mediums who are competing with newspapers for National advertising seem to be doing a more attractive job of printing, even though they have in many instances reduced the weight of their paper. Other competitors are constantly striving to improve their appeal. In our efforts to operate within our quotas and a possible desire to add to the revenue of newspapers during this acute period, it seems to me unwise to engage in too much mutilation.

No one knows better than you men who are engaged in a supervisory capacity in the mechanical departments, the uphill battle it has been to improve the appearance of newspapers. Great progress has been made during the past ten or fifteen years, but there is still much that must be done. Let us not, in our excitement, step so far back in appearance and appeal, that we have a long way to go to again get back to where we were when the paper restrictions became effective. Let us not overlook the fact that one of these days we are going to need a better looking product to sell to the advertiser. The reader, too, is also becoming accustomed to better printing. It usually requires much more time to improve the standard of a product than it does to tear it down. No one newspaper sets the standard. The appearance of newspapers in general, is pretty much the controlling factor.

If I were an advertising salesman on a newspaper at some future date, when we will again have to go out and sell advertising rather than ration it, I am sure I could interest more people with an appealing product than I would if I represented one which had been allowed to deteriorate or which had become less attractive, because of numerous surgical operations. Let us think long and well before we do too much of that. I doubt that the small amount of the increased revenue newspapers will be able to retain in their cash drawers justifies adopting all the typographical disfigurement that has been suggested.

Quite a number of American newspapers have made test runs of 30 pound paper and generally speaking, according to their reports, they have noticed little, if any, difference. The 30 pound stock will give 6.7% more area per ton if there is no increase in waste or transient damage.

U. of M.

Mechanical Conference

PRODUCTION Manager Charles J. Hentschell of the St. Louis *Post-Dispatch*, at the request of Dean F. L. Mott of the University of Missouri's School of Journalism, presided over a mechanical conference that was held Saturday morning, May 13, in Columbia, Mo.

Despite the fact that only three weeks' notice of the meeting was given, sixty people interested in newspaper mechanical technique got together. The meeting developed a number of good suggestions.

At the suggestion of Dean Mott, a permanent organization was effected, as follows: President, Charles J. Hentschell, St. Louis *Post-Dispatch*; First Vice President, D. E. Smith, Supt., Joplin (Mo.) *Globe*; Secretary, Robert Vickery, Columbia (Mo.) *Tribune*; Treasurer, Beryl Trouttman, Supt., Hannibal (Mo.) *Courier-Post*; Chairman-in-charge, E. E. Swift, Supt., Columbia (Mo.) *Missourian*.

Expressly, the conference was held for the purpose of providing information

for the repair and maintenance of composing machines, presses and other printing equipment.

Assisting Mr. Hentschell in the initial me eting on May 13 were Leo J. Carle, Mergenthaler Linotype Co.; Andy Folber, Ludlow Typograph Co.; E. A. Tracy, American Type Founders; Guy Myover, J. M. Huber, Inc.; C. A. Brattstrom, Geo. H. Morrill Div., General Printing Ink Corp.; Charles Carroll, International Printing Ink Corp.

Iowa Executives

(Continued from Page 50)

problems, dealing in particular with greater use of color reproduction.

Gus Carlson of the Harold M. Pitman Company exhibited samples of four color printing on news stock by the offset process and discussed methods of filling the need for color in the newspaper business.

Discussion centered largely on the old topic of cold top and its problems, particularly in humid weather. The war situation has made it difficult to select shellac and the manufacturer has to make the best use of what is available. The consensus of proper technique in dealing with cold top troubles was:

1. Get the plate hot.
2. Avoid damp whirlers and rooms where possible.
3. Avoid delay before printing.
4. Have negatives thoroughly dry, and the flat at a comparable temperature.

A brief discussion was held on methods of fastening thin metal to the block. Mr. Weber of the Lacross (Wis.) *Tribune* informed the group he was using a cement manufactured by the Minnesota Mining Company, called "Three M Cement."

After reelecting Ken Waughtal as Chairman for 1945 the meeting was declared adjourned.

Caldwell Receives Gift

VAL WELLS, vice president of the Iowa conference, presided as toastmaster during the noon luncheon. He introduced various guests, including Al Rosene, of the St. Paul *Dispatch* and *Pioneer Press*, and who is also president of the Northwest Mechanical Conference. He complimented Manny Caldwell, trade representative, who has attended all Iowa meetings and was instrumental in organizing the Northwest Conference. Mr. Caldwell is now traveling in his company's central territory. In recognition of Mr. Caldwell's efforts in furthering the activities of both the Iowa and Northwest conferences, Mr. Wells, in behalf of the Iowa conference presented Mr. Caldwell with a pen and pencil set, and Mr. Rosene, in behalf of the Northwest conference, presented him with a gold wrist-watch.

AT the general session called at 2 o'clock, Leon Link of the Printing and Publishing division of the War Production Board, was the principal speaker. Mr. Link was the founder of the Iowa conference, the first regional conference to be organized in the United States for newspaper mechanical men. See abstract of Mr. Link's address in this issue.

Thumbs Down on Consolidation Idea

THE matter of consolidation of the Iowa and Midwest conference was brought to the floor, but it was decided to remain as two separate units, the Iowa conference meeting in May each year and the Midwest in February, either in Minneapolis or St. Paul.

Officers Elected

IN the election of officers, Val Wells, assistant mechanical superintendent of the Des Moines *Register* and *Tribune* was chosen president.

First Vice President — Arthur Schmeichel, composing room foreman, Muscatine (Ia.) *Journal*.

Second Vice President — John A. Hardaman, day composing room foreman *Register* and *Tribune*, Des Moines.

Secretary-Treasurer — Paul Kamler, composing room foreman, Clinton (Ia.) *Herald*.

Des Moines was again selected as the conference city for 1945.

"COLOR IS LIFE

COLOR into life is woven,
From a formula well chosen
By the Gods whose gifted talents
Rule our Planet's path in space.

Give us then the strength and foresight
To hold this gift an earthly birthright
And in spirit just and upright,
Spread more color every place.

And There Is Life In S. & V. Colors — Available In All Shades"

Sinclair and Valentine Co.
MAIN OFFICE AND FACTORY: 611 WEST 129th STREET, NEW YORK, N. Y.
Albany Baltimore Birmingham Boston Charlotte Chicago Cleveland Dallas Dayton Detroit Havana Jacksonville Kansas City Los Angeles Manila Miami Nashville New Haven New Orleans Philadelphia San Francisco Seattle

POSITIVE SERVICE

WE WILL *Sell* OR *Buy*

USABLE Newspaper Printing Equipment of All Kinds

If we don't have what you want, we will scour the earth in our attempt to get it for you.

If you have idle machinery, or want to replace it with A-1 Remanufactured Equipment, we will either buy it outright, or you may trade it in for such equipment items as we may have in stock.

For the information of newspaper executives, we have a limited amount of the following equipment:

Linotype Magazine Racks.
6 ft. and 10 ft. reinforced steel top Newspaper Storage Tables with underneath storage.
Composing room marble top Imposing Tables with storage underneath.
Linotypes, Gas Monomelts, Full-page and smaller Stereo Casting Boxes.
Galley Proof Presses.
Newspaper Folders, for folding 4 regular size pages or 8 tabloid size pages.

The M. L. ABRAMS Co.

Complete Plants Bought, Sold, Liquidated
New and Remanufactured
Printing Machinery and Supplies

1639 Superior Ave. Cleveland 14, Ohio

PIN UP GIRL for '44

. . . Our symbol of freedom and "The American Way" of living—well worth sacrifices and hard work. Until peace-time comes **CHALLENGE WORKERS** have their job cut out and cherish a solid determination to see it through.

. . . Our Maintenance Service Department welcomes your inquiry on specific production problems. Further, Challenge can still supply some of your equipment requirements from a limited stock. Tell us your needs—possibly we can help!

THE
CHALLENGE MACHINERY CO.
Main Office and Factory: GRAND HAVEN, MICHIGAN
. . . . Eastern Sales Office: 50 Church Street, NEW YORK . . . .
486

BUY MORE WAR BONDS

CROMWELL
SPECIAL PREPARED
Tympan
CAN TAKE IT!

The finest makeready is only as good as its tympan. Unless a tympan fulfills completely the following four requisites, it is not a good tympan paper . . . not good enough to insure the printing results that you want to give your customers.

1. HARD, UNIFORM SURFACE
2. HIGH TENSILE STRENGTH
3. PROOF AGAINST OIL & INK SOLVENTS
4. PROOF AGAINST MOISTURE AND EXTREMES OF TEMPERATURE

These four qualities are fundamental in CROMWELL Special Prepared TYMPAN . . . famous wherever fine printing is produced.

Now, as always, CROMWELL TYMPAN is unconditionally guaranteed. Available in sheets or rolls to fit any high speed press. Order from your distributor.

THE CROMWELL PAPER CO.
4801-39 S. Whipple St. Chicago 32, Ill.

Iowa Line-Casting Machinists Association

THE Iowa Line-Casting Machinists Association meeting is always held in conjunction with the annual meetings of the Iowa Mechanical Conference. The 1944 meeting was held on Sunday, May 24. According to statements of machinists and plant executives who have attended these meetings much helpful information has been obtained.

For the 1945 meeting, it is planned to send out a questionnaire to provide newspapers in the Iowa Conference territory an opportunity of presenting their composing machine problems at that meeting.

Because of war conditions, the regular plant clinic meeting was dispensed with at the Des Moines meeting. It is the desire of the membership, however, that the plant clinics be resumed as soon as possible.

Morey Discusses Teletypesetter

At the Sunday, May 21 meeting, Walter Morey of Teletypesetter Corporation, gave a descriptive presentation about the improvements which have been made in the Teletypesetter and which have not been announced previously. Advancement is indicated both in the use and design of the machine. At the present time, there are more Teletypesetter installations in use in foreign countries than there are in the United States.

Mr. Morey discussed Teletypesetter's new keyboard perforator counting mechanism, by means of which the matrix counting and calculating mechanism may be changed quickly from one set of counting values to another. In this way, the need for unit-font matrices, except in a few instances, is eliminated. Most of the standard matrix fonts manufactured by Intertype and Linotype may be used.

Mr. Morey answered the question: "Will Teletypesetter assist in meeting the postwar operator problem?" He answered in the affirmative. He said that all branches of the military services use Teletypes. It is estimated that there will be from 12,000 to 15,000 men having Teletype experience during the war. Many of these men were selected for Teletype operating duty in the war because they have a background of printing office experience, some having been linotype operators.

He described multiple Teletypesetter installations in the editorial rooms of *Time* and *Life*, in New York. Operators transcribe copy into tape which is put through Teletype transmitter-distributors for sending telegraph signals to Philadelphia and Chicago printing plants, where the copy is reproduced in tape form for the printer.

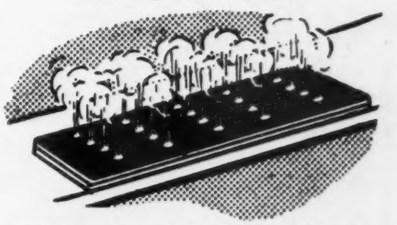
Mr. Morey also described a multiple Teletypesetter installation in Hot Springs, Ark., where Southern Newspapers, Inc., publishes newspapers not only in Hot Springs but also in five other cities. A Teletypesetter wire hookup enables Southern Newspapers to transmit news in the form of tape and copy to all papers simultaneously.

He concluded by stating that some of the smaller newspapers, using only one machine, report setting from 50% to 90% of their straightmatter type with the aid of the Teletypesetter.

After conclusion of Mr. Morey's ad-

PERFORATED GUMMED PACKING FELT

Important where considerable shrinkage is employed



Manufactured under Patent No. 1,967,444

Is More Flexible • Forms with the Mat • Dries Faster • Sets Instantly

Send for a Trial Order Today—
Sheets or Cut Strips

American Publishers Supply
P. O. Box 924 Lynn, Mass.

dress, the machinists discussed mechanical and technical problems. Some subjects discussed were conversion of electric pot elements by interchanging envelope-type elements to the newer type calrod units; technique used in piening second elevator lever to secure proper alignment of the bar with the distributor box bar; causes for improper advance of mold disk; difficulties with 6-pocket mold disks.

Officers elected by the Line-Casting Machinists Association were: Carl B. Bloomberg, president, Des Moines *Register* and *Tribune*; Cy Morse, vice president, Dubuque (Ia.) *Herald*; C. R. Hourihan, secretary-treasurer, Ottumwa (Ia.) *Courier*; Executive Committee members are: Neff Sauerwine, Des Moines *Register* and *Tribune*; Leo Rosenberg, Clinton (Ia.) *Herald*; H. C. Keene, Waterloo (Ia.) *Courier*.

Pacific Conference

(Continued from Page 72)

Engraver—It is always safer with black and white—the benday is OK if the results in the paper please you. Veloxes have not been too good lately—if they are good, the results are better.

Chairman—When the advertiser sends in copy and a layout for the art, we wish a notation could be made on it saying which engraver the cut is coming from—so the compositor will know if it is to be 18 or 16 gauge. Sometimes satisfactory printing may be obtained by underlaying. Mark the layout: "Cuts to come," and say what kind of zinc the engraver is using.

Compositor—Says he has contacted some of the advertisers regarding this and asked for the name of the engraver. Often they are unable to give it to him. Frequently they have an ad with two thicknesses of zinc. His paper provides a slug with the name and telephone number of all the engravers in the city, and they check it so that they will know when the proof is returned. They supply these advertisers only with the block type proof of the ads until they supply the names of the engravers.

Advertiser—Believes above to be a very good idea.

Compositor—This expedites matters appreciably.

Advertiser—In a recent ad the cut came out badly. The newspaper said the engraving was no good. The engraver looked through a glass and said the cut was perfect.

Chairman—Next time have the engraver bring his depth gauge.

Advertiser—Says he doesn't remember having these difficulties before the war.

Chairman—Suggests trouble might be due to thin zinc and manpower shortage.

Advertiser—Suggests the newspaper furnish the advertiser with a list of the various key people at the newspaper to contact, thus eliminating a lot of waste telephone time.

Advertiser—Is it possible for the newspapers to furnish the store with accurate layout sheets to work by? They don't always run true to size. Give them a master layout sheet on cellophane or something similar.

Compositor—A master sheet on cellophane over a light would be the proper solution at the present time.

Interesting Suggestions

Manpower shortage, wage ceiling, tear sheets, number of proofs, 30-lb. paper, thin zinc and many other problems were discussed at the Sunday morning session.

It was discovered that in the mechanical departments of some of the newspapers more than 75% of the men were over 50 years of age. In others they are working six days a week partly because they need the production and partly to increase the pay and thereby hold their force intact.

The excessive demands for tear sheet and proofs seriously aggravates the manpower shortage. It was suggested by one delegate that 10 proofs be the limit on the first proof and 4 on the revises. Thirty tear sheets maximum—5c each for extras.

Thirty-pound paper seemed to be accepted favorably. Many reported having good results in their experiment with it. The strike-through had to be watched some but by running a little gray it could be handled.

THE MANPOWER SHORTAGE

Demands That You —

SAVE TIME

SAVE MONEY

WITH "RIEHL-OCK"

No-String Tie-up System

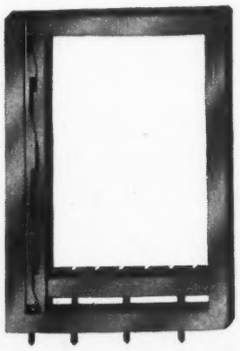
ADJUSTABLE TIE-UPS

GALLEY END LOCKS • GALLEY SIDE LOCKS

Write for Free Sample Kit

THE RIEHL GALLEY LOCK CO., Inc.

1312 Ontario Street Cleveland 13, Ohio



Our Efforts are directed toward

WINNING THE WAR

★

MAINTAINING

Your Equipment and Conserving Man Power are Part of this Program . . . .

★

Call on us FOR REPAIRS OR REPLACEMENT OF CHASES that are beyond repair

AMERICAN STEEL CHASE CO.

31-31 48th Avenue, Long Island City, N. Y.

PITMAN

Engravers Supplies

Zinc Copper
Equipment Chemicals
Special Processes

Serving the Photo-Engraving Industry Since 1906

Representatives at A.N.P.A. Conference
BOB GRUBBE FRANK KOLAR
ROY SMITH

Ask our representatives about the new processes for making better newspaper engravings. They will be pleased to discuss any engraving problems with you.

HAROLD M. PITMAN CO.

51st Ave. and 33rd St. **Chicago 50**
441 Lexington Ave. **New York 17**

West Coast Agent—**G. Gennert, 1153 Wall St., Los Angeles 15**

TESCH

SAW FILER

Absolute Accuracy Built for the publishing trade Guides the sharpening of the saw blades from a machined index plate. AUTOMATIC—Either Hand or Electric driven.

PAYS FOR ITSELF

TESCH SAW SWAGER

The only Swager built for the Graphic Arts. Accurately SWAGES more than 100 teeth a minute.

A teammate of the Tesch Saw Filer

Write for Literature

TESCH MFG. COMPANY
2700 S. 19th St.
Milwaukee 7, Wis.

Expand Conference Territory

At the business session a new organizational setup was made. The conference was increased in scope to include the Pacific slope. The next meeting will be held in San brancisco in 1945. The official setup was changed to conform to the new organization.

Ira Stuck, *Shopping News*, San Francisco, was elected president. Fred J. Moyer, Los Angeles *Daily News*, re-elected first vice president. Harry Davidson, San Francisco *Call-Bulletin*, second vice president. Jerry Bolman, Los Angeles *Shopping News*, secretary Southern division. Edward Conley, San Francisco *Chronicle*, secretary Northern division.

WPB Notes

(Continued from Page 74)

changes were pointed out by Mr. West, as follows:

The definition of a "book" has been changed in several respects approximating the definition as it existed in the 1943 version of the order. "Book" means any bound or loose-leaf collection of 32 or more pages, including any school work book, educational test, advance parts and supplements of a book, and any book intended for juvenile use irrespective of the number of pages it contains, if such printed matter is offered for sale.

Excluded from the definition "book", and hence from the restrictions imposed by the order, are books of less than 32 pages, whether or not they are offered for sale, and books, irrespective of length, which are not offered for sale. Juvenile books offered for sale are definitely controlled by L-245 even if they contain substantially less than 32 pages.

ON May 9, the War Production Board amended Conservation Order M-246 to allow anyone to receive free samples of phenolic resins or phenolic resin molding compounds without specific authorization in any quantity, except for resins containing para tertiary butyl

OHIO KNIVES

OK BLACK ARROW *Trimmer Knives*

A special heat treatment of the steel assures you of extra long life between grinds and a tough edge for all kinds of cutting.

OHIO KNIFE CO. • CINCINNATI 23, OHIO

STANDARD EQUIPMENT ON MANY LEADING TRIMMERS

This perfected SWW paper trimming knife features:
1. A .002" concave bevel; grinding to a razor edge sharpness made easier.
2. Greater rigidity—limits variance across a trim to less than .001" inch.
3. Special heat treatment responsible for the knife's unusual edge holding qualities.

On the market for 60 years. Thousands of printers use them. Yours awaits your order—by letter, wire or phone.

SIMONDS WORDEN WHITE COMPANY
607 NEGLEY PLACE
DAYTON, OHIO

SWWCo

PRESS BLANKETS

Tailored to fit the press and printing requirements. Cork, oil-proof synthetic rubber or combination for newspaper, magazine or job work, any press .022 to .151 gauge. . . . *Guaranteed for service; will not mat, stretch or creep.*

ACME PRESS BLANKET CO., 162 North Wells Street, Chicago

FOR SAFETY FROM FIRES
JUSTRITE
SAFETY PRODUCTS

Eliminate the hazards of flammable materials that cause ruinous fires around print shops. Use Justrite Safety Products. They provide the safe, sane means of handling volatile liquids and oily waste. Invest in Justrite today . . . for a safe shop always.

Oily Waste Can with foot lever. Sizes 6 to 14 gal.

JUSTRITE MANUFACTURING COMPANY
2063 N. Southport Avenue, Dept. J-2, Chicago, Illinois

A. P. S. GUMMED PACKING
CORK BLANKETS
CREEPERS
POURING SHEETS
ROUTER BITS
TAILBOARDS

ALWAYS BEST AT
AMERICAN PUBLISHERS SUPPLY
17 Stewart Street Lynn, Mass.

SAVE YOUR MANPOWER
BUY NEW "BULLDOG" CLAMPS
Save Their Hands

New Model
J. A. Richards
The Saw-Maker
Kalamazoo
13F
Mich.

ANTI-FANNING

miller

. . . for modern pressrooms

MILLER PRINTING MACHINERY CO., PITTSBURGH, PA.

Consult *Printing Equipment Engineer's* Printing Equipment and Supplies Catalog for sources of supply.

phenol and para phenyl phenol, in which case the quantity is limited to 10 lbs. a month.

A provision has been added also to allow any one person to receive in any one calendar month up to 110 gal. (two drums) of phenolic resins or phenolic resin molding compounds for experimental purposes. However, in the case of resins containing para tertiary butyl phenol and para phenyl phenol (for experimental purposes), a person is limited to receiving 10 lbs. in any one month.

Shippers of these materials must apply on Form PD-601 for blanket authorization covering the shipment of these quantities.

Inventory Restrictions Amended

INVENTORY restrictions of converters of pulp, paper and paperboard, prescribed in War Production Board Conservation Order M-241-a, have been amended to limit the total over-all quantity of pulp, paper and paperboard on hand instead of the amount of each particular paper grade, officials of the WPB Paper Division said on May 19.

Heretofore inventories were limited to two carloads or not greater than 30 days' supply at the current rate of consumption of each grade of pulp, paper and paperboard, but now apply to the over-all quantity.

There have been many instances, WPB said, where to obtain a run of paper in accordance with the provisions of L-120 (simplification and standardization) would place the converter in a position where he would have an excess in inventory of the permitted amounts of a particular grade, although his over-all position would be in compliance. The change will enable converters to avoid complications arising from technical violations of the order, WPB said.

Pulp and Paper Mill Construction Authorization

AUTHORIZATIONS to purchase materials for the construction of pulp and paper mill machinery costing approximately $2,500,000 have been approved by the Paper and Paperboard Divisions of the War Production Board in the second quarter of 1944, Allan Hyer, chief of the Distribution Section for Paper and Paperboard, said on May 21.

These authorizations will probably increase during the remainder of the quarterly period and approach the total allotment of $2,898,000 set aside for the production of mill machinery, he told members of the Pulp and Paper Machinery Advisory Committee at a recent meeting. At the same time, he added, approximately as many requests were denied as were granted in the second quarter because the equipment proposed was not considered important in manufacturing paper products for military and other essential requirements.

Mr. Hyer explained that the aim of the WPB Paper and Paperboard Divisions was to expedite delivery of materials and equipment to mills producing essential paper and paperboard products. Mills in need of equipment should file their applications promptly, and describe clearly and in detail the value thereof in improving production.

May Apply for Waste Paper Allocation

WHEN in danger of closing down because of waste paper required for essential manufacturing or conversion operations, paper and paperboard mills may apply to the Office of Pulp Allocation, War Production Board, for a special directive allocating waste paper to them, Harold Boeschenstein, Acting Director of the War Production Board's Forest Products Bureau, stated on May 23.

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Learn About TRANSPARENT IMPRESSIONS!

You should have this folder which describes in detail the steps used in the Vandercook Method of Making Transparent Impressions.

It tells how you can convert letterpress forms and plates for offset printing without the use of the camera.

If you have a lithographic department or are considering one, you should know about the Vandercook Method of Making Transparent Impressions. The full information will be sent at your request.

VANDERCOOK
PROOF PRESSES · BLOCK LEVELLERS · HACKER GAUGES

VANDERCOOK & SONS, Main Office and Plant, 900 N. Kilpatrick Ave. Chicago 51, Illinois

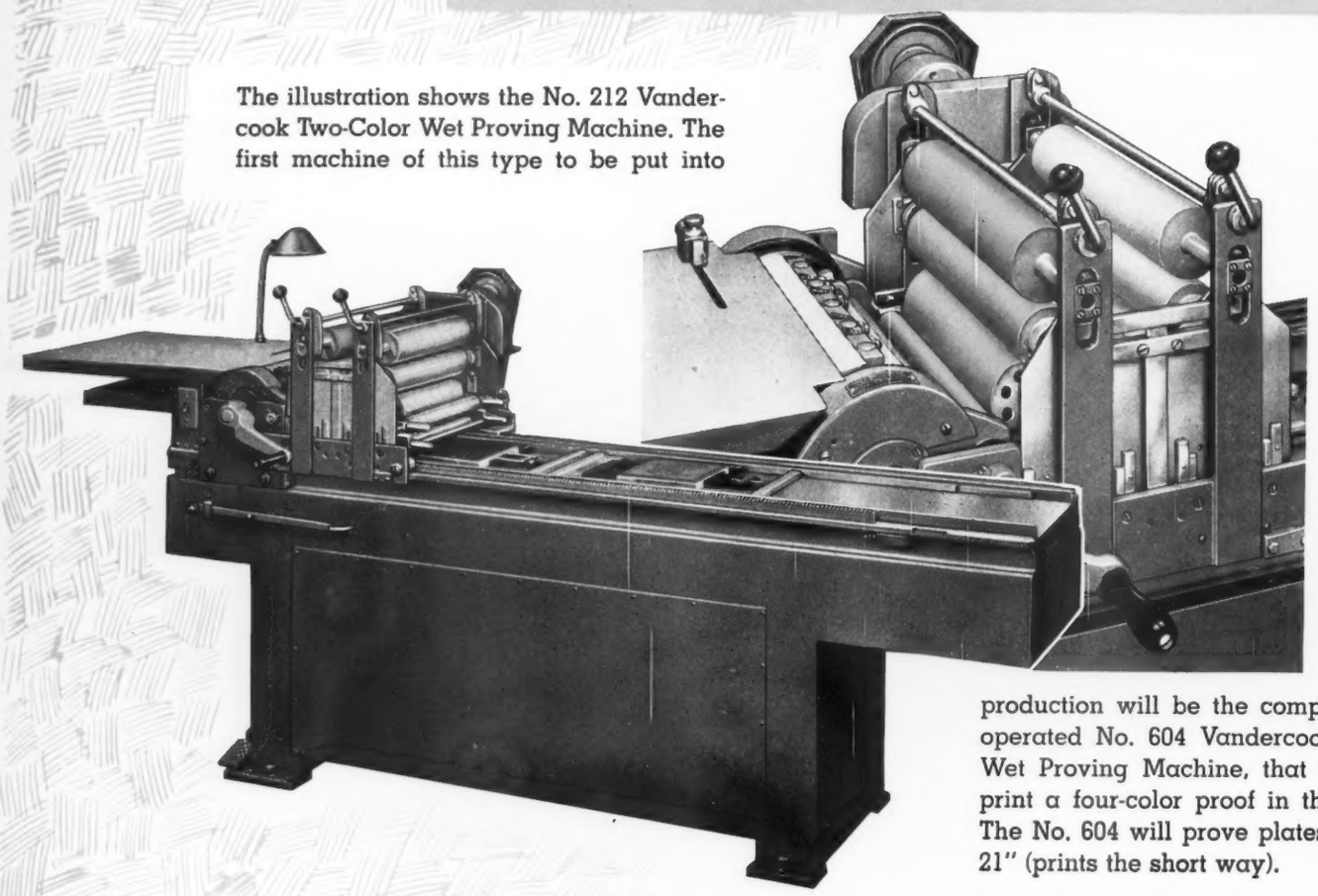
VANDERCOOK
PROOF PRESSES
BLOCK LEVELLERS
GAUGES

VANDERCOOK & SONS

Main Office: 900 North Kilpatrick Avenue, Chicago 51, Illinois

No. 212 Vandercook Wet Proving Machine

The illustration shows the No. 212 Vandercook Two-Color Wet Proving Machine. The first machine of this type to be put into

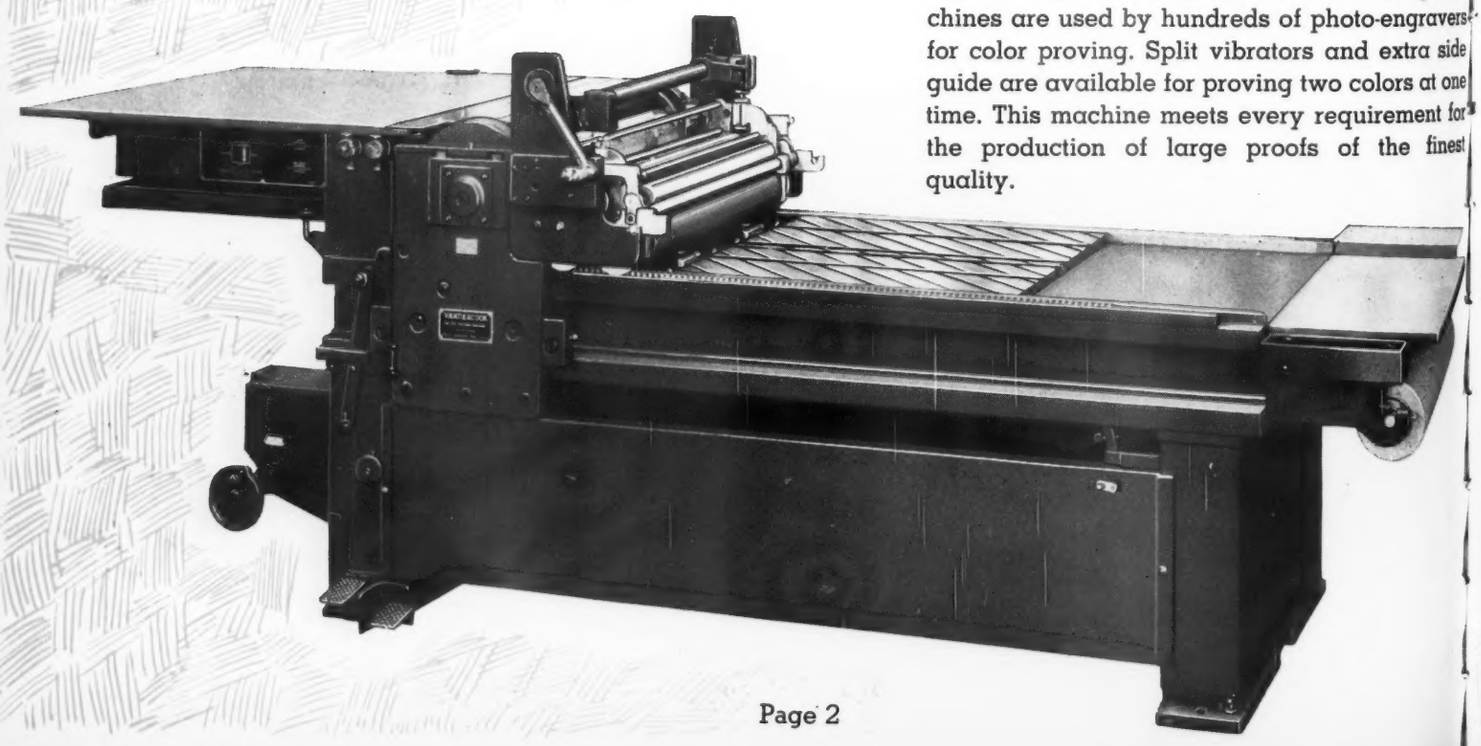


production will be the completely power operated No. 604 Vandercook Four-Color Wet Proving Machine, that will ink and print a four-color proof in three seconds. The No. 604 will prove plates up to 25" x 21" (prints the short way).

No. 232P Vandercook Power Proving Machine

FORM SIZE	SHEET SIZE
31½" x 28"	32" x 30"

The No. 232P Vandercook Power Proving Machines are used by hundreds of photo-engravers for color proving. Split vibrators and extra side guide are available for proving two colors at one time. This machine meets every requirement for the production of large proofs of the finest quality.

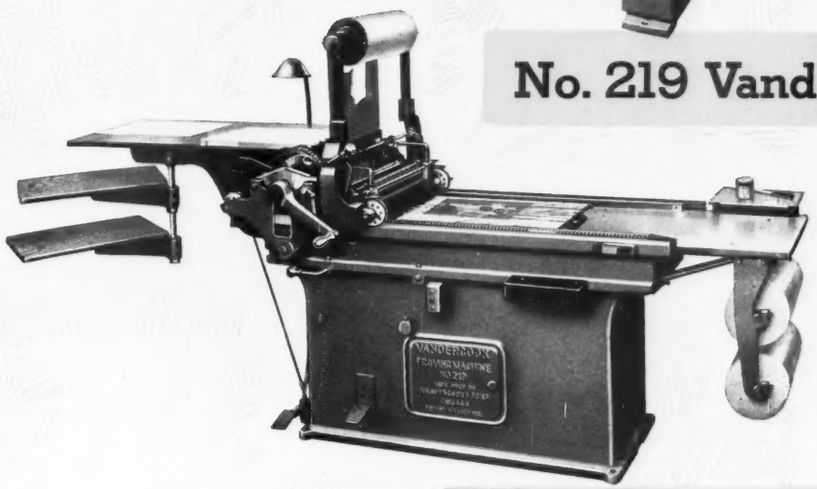


No. 223P Vandercook Power Proving Machine

FORM SIZE 22½″ x 28″ — **SHEET SIZE** 23¼″ x 30″

The No. 223P Vandercook Power Proving Machine is the same as the No. 232P except that it has 8¾″ less between bearers. Split vibrators and extra side guide are available for proving two colors at one time.

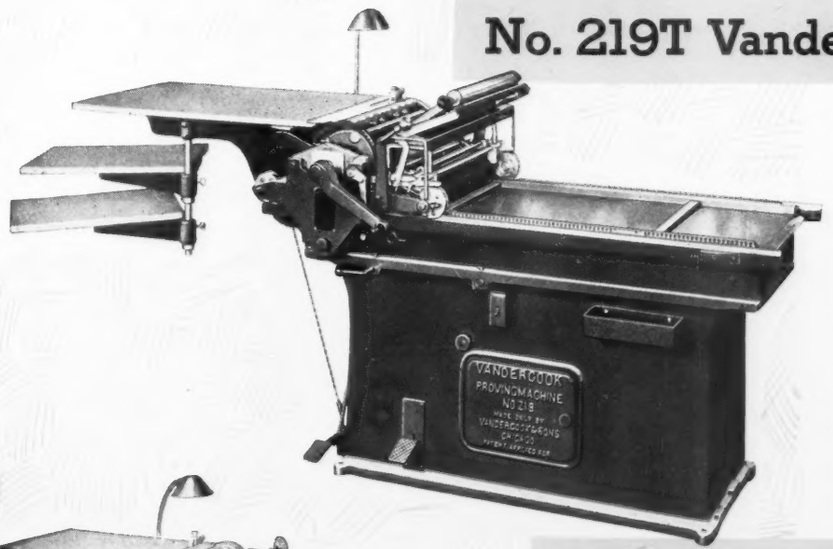
No. 219 Vandercook Proving Machine



FORM SIZE 18″ x 24″ — **SHEET SIZE** 18¾″ x 26″

The No. 219 Vandercook Proving Machine is the world's most popular hand-driven Proving Machine for black and white and color proofs of the highest quality. It has power ink distribution, changeable inking units and micrometer sheet guides. Photo-engravers, electrotypers, printers and typesetters have used this model for many years.

No. 219T Vandercook Proving Machine



FORM SIZE 18″ x 24″ — **SHEET SIZE** 18¾″ x 26″

The No. 219T Vandercook Proving Machine for Transparent Impressions is similar to the No. 219 except that it has a special impression cylinder to accommodate an offset blanket and it is equipped with a device for feeding cellophane sheets. This model produces sharp opaque impressions of type and halftones printed on both sides of transparent material. These transparencies are used as positives in making offset plates and they are used for making gravure cylinders. Also used for regular proofs.

No. 4 Vandercook Proving Machine

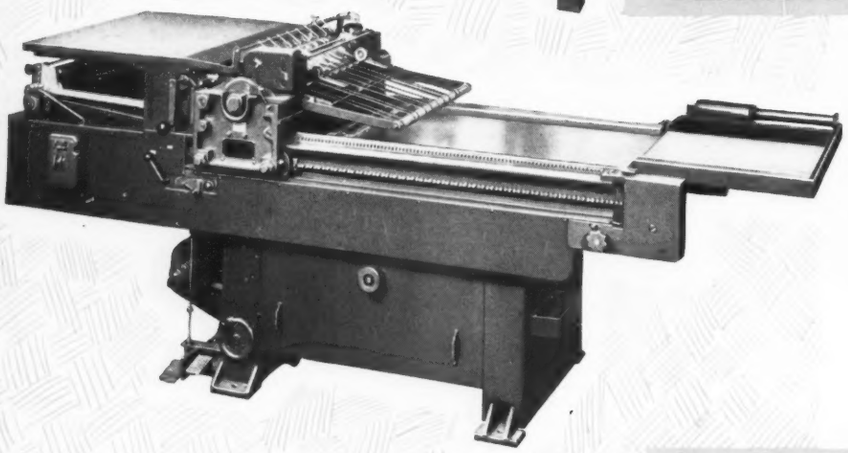
FORM SIZE 14″ x 18″ — **SHEET SIZE** 14¾″ x 20″

The No. 4 Vandercook Proving Machine has power ink distribution, changeable inking units and micrometer guides. It gives rigid, accurate impression and hairline register. It is right for high grade proving within its size.

No. 4T Vandercook Proving Machine

FORM SIZE 14″ x 18″ — **SHEET SIZE** 14¾″ x 20″

The No. 4T Vandercook Proving Machine is similar to the No. 219T except that it is smaller. It is the proper model for producing transparencies within its size. May also be used for regular proofs.



No. 325A and No. 325G Vandercook Power Proof Presses

FORM SIZE 24″ x 24½″ — **SHEET SIZE** 24¾″ x 27″

The No. 325A Vandercook Power Proof Press is especially equipped for newspapers. It will produce 1000 high grade proofs per hour of newspaper pages locked in stereotype chases without printing the type high chase. The No. 325G does not have the newspaper equipment. This model has adjustable end sheet guides which cannot be used on the No. 325A as they would hit the type high chases. Automatic sheet delivery and ink fountain are standard equipment.

No. 325A and No. 325G Vandercook Hand Proof Presses

FORM SIZE 24″ x 24½″ — **SHEET SIZE** 24¾″ x 27″

Due to full ball bearing impression cylinder, No. 325G Vandercook Hand Proof Press is remarkably easy to operate on large forms. These presses are similar to the power driven models and they may be equipped with automatic sheet deliveries and ink fountains.

No. 320G Vandercook Hand Proof Press

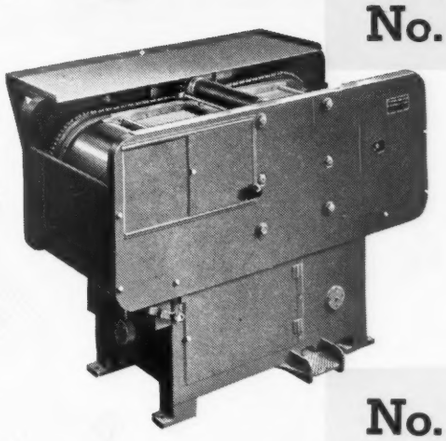
FORM SIZE 19″ x 24½″ — **SHEET SIZE** 19¾″ x 27″

The No. 320G Vandercook Hand Proof Press is the same as the No. 325G except that it has 5″ less between bearers. This model is in wide use in commercial printing plants where high quality work is essential. Color forms may be registered perfectly for plating or for the presses. Illustration shows press equipped with automatic delivery and fountain (optional).

No. 317 Vandercook Hand Proof Press

FORM SIZE 16″ x 24½″ — **SHEET SIZE** 16¾″ x 27″

The No. 317 Vandercook Hand Proof Press is the fastest hand driven proof press for high grade proofs. It will print from 15 to 25 high grade proofs per minute. Efficient automatic inking system and semi-automatic sheet delivery are standard equipment. Ink fountain is optional equipment.



No. 23 Vandercook Electric Proof Press

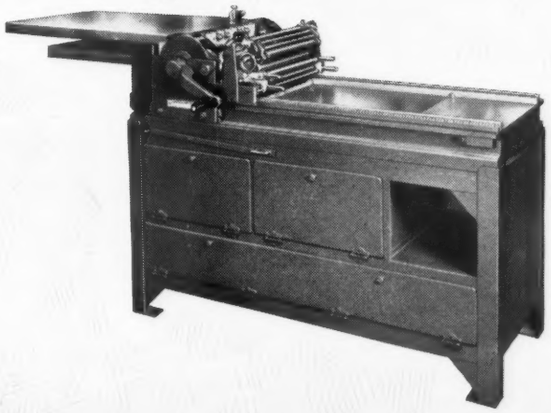
FORM SIZE 14″ x 27½″ — **SHEET SIZE** 14¾″ x 30″

The No. 23 Vandercook Electric Proof Press will produce up to 40 good proofs a minute. It will take a tabloid newspaper page or a five full-column advertisement. The U. S. Government Printing Office uses 18 No 23 Vandercooks for straight matter and page proofs.

No. 22 Vandercook Electric Proof Press

FORM SIZE 8″ x 25¾″ — **SHEET SIZE** 9¾″ x 29″

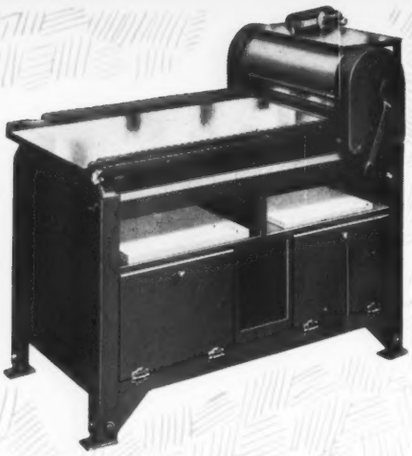
The No. 22 Vandercook Electric Proof Press is similar to the No. 23 except for size. It is used for proving type and slugs in galleys as they come from the machines and for ads and pages within its size. Vandercook ALLYEAR Synthetic Inking Rollers are standard equipment.



No. 3 Vandercook Proof Press

FORM SIZE 14″ x 18″ — **SHEET SIZE** 14¾″ x 20″

The No. 3 Vandercook is the most popular small, hand driven automatic inking proof press. This machine provides every facility for fine proofs at a moderate price. The impression is rigid and accurate, the ink distribution ample and the register perfect.



No. 2 Vandercook Proof Press

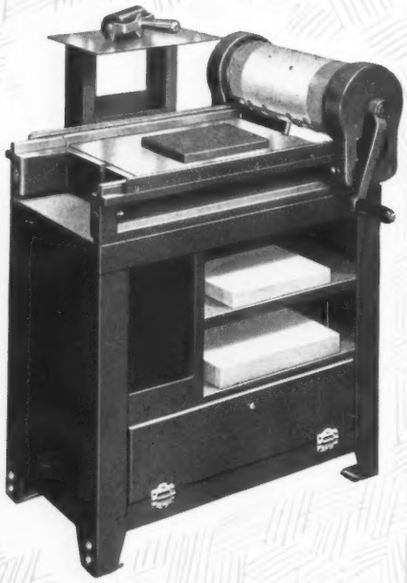
FORM SIZE 23″ x 24½″ — **SHEET SIZE** 23¾″ x 26½″

The No. 2 Vandercook Proof Press is a modern hand inking proof press for forms up to full newspaper pages in stereotyping chases. Extra heavy bed and cylinder are designed for lasting accuracy and machined to close limits. Operation is surprisingly easy due to full ball bearing construction.

No. 14 Vandercook Proof Press

FORM SIZE 16⅝″ x 23¼″ — **SHEET SIZE** 17⅞″ x 25

The No. 14 Vandercook Proof Press is a precision hand inking machine equipped with cylinder grippers. Full ball bearing construction permits easy operation with an impression setting of 200 lbs. per lineal inch. Cylinder grippers make possible good proofs of halftones and make this model practical for reproduction proofs.



No. 1 Vandercook Proof Press

FORM SIZE 15″ x 17¼″ — **SHEET SIZE** 15¾″ x 19

The No. 1 Vandercook Proof Press is similar to the No. 14 except for size. It has all the essential features necessary to produce fine proofs where hand inking is practical. It is an ideal proof press for smaller printers or auxiliary equipment in larger plants.

No. 0 Vandercook Proof Press

FORM SIZE 12½″ x 21″ — **SHEET SIZE** 12¾″ x 23

The No. 0 Vandercook Proof Press is the latest development in an inexpensive proof press. Although the rubber impression cylinder is rigidly held down to the bed bearers it operates very easily because it is carried on six precision ball bearings. It is used extensively by the smaller printers and in larger plants as auxiliary equipment.

No. 10 Vandercook Block Leveller

THE NEW No. 10 Vandercook Block Leveller is designed for permanent, precision accuracy under heavy duty use. It is definitely a NEW machine, meeting the need of those who demand plates accurate in type height. It will plane a cut 12½" x 18". This is the most practical size for the majority of printing and plate making plants.

The No. 10 Vandercook Block Leveller will take both wood and metal mounted plates. Easily read dial permits accurate cutting to predetermined block height. No calculating is necessary.

The work table, formerly started by hand and friction driven, now has an individual motor which controls the speed of rotation and tends to better and smoother operation. The automatic brake is a new feature.

The size of the cutter motor on the new No. 10 Vandercook Block Leveller has been increased from one-half to one horse power. This speeds up cutting operations and extends the life of the machine.

Hacker Gauges

No. 8 Hacker Plate Gauge
Measures Plates
up to 26" wide

No. 9 Hacker Plate Gauge
Measures Plates
up to 18" wide

No. 6 Hacker Plate Gauge
Measures Plates
up to 12" wide

No. 3 Hacker Plate Gauge
Measures Plates
up to 6" wide

Hacker Type Gauge
Measures height of
type and slugs

Hacker Slug Gauge
Measures thickness
of slugs

All sizes and styles of printing plates both curved and flat (mounted or unmounted) can be measured on the Hacker Plate Gauges. Accurate measurements are made *under printing pressure* in minimum time. The indicator dial shows instantly how many thousandths the plate is under or over the desired thickness.

PRINTED IN U.S.A.

for MAXIMUM CAPACITY IN MINIMUM SPACE

Interchangeable

WITH SINGLE-ROW BALL BEARINGS

NORMA-HOFFMANN

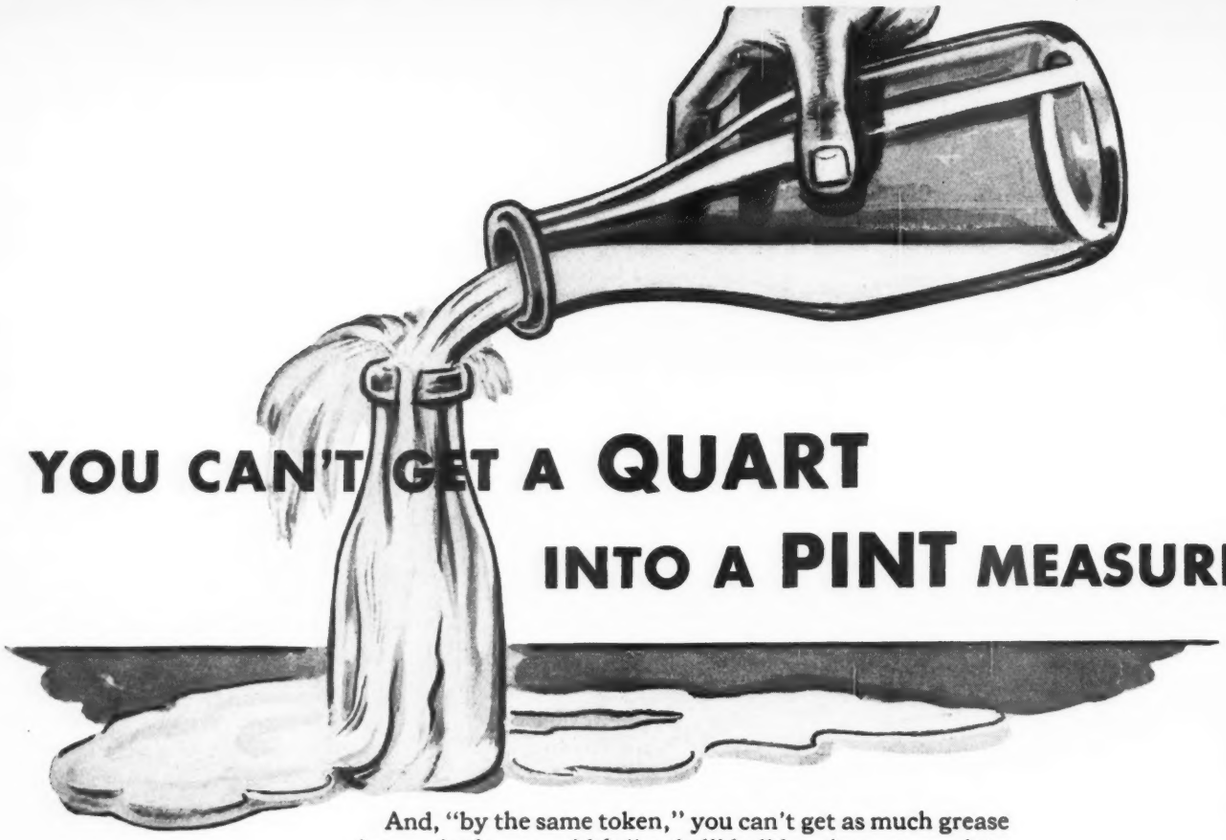
PRECISION ROLLER BEARINGS

NORMA-HOFFMANN BEARINGS CORP'N.,

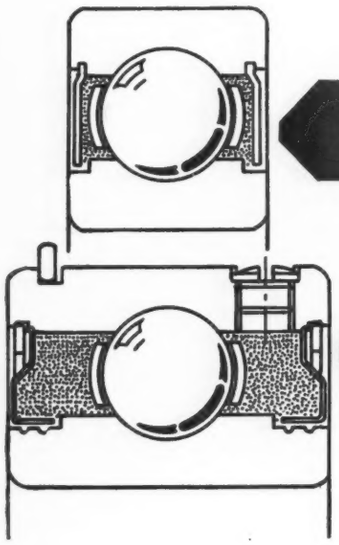
STAMFORD, CONN., U. S. A. • *Founded in 1911.*

Write for the Catalog. Let our engineers work with you.

Their solid cylindrical rollers provide maximum contact area, giving larger load and shock-absorbing capacity than any other single-row bearing of like dimensions. Thus, when NORMA-HOFFMANN PRECISION ROLLER BEARINGS are used in place of ball bearings, a greater factor of safety is provided, together with added life, particularly under vibration and overload. PRECISION qualities in workmanship and materials adapt them alike for both low and high speeds.



YOU CAN'T GET A QUART INTO A PINT MEASURE



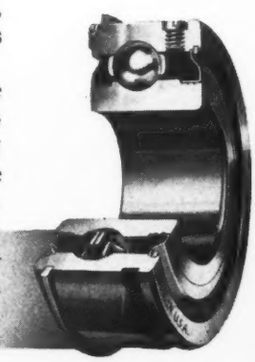
And, "by the same token," you can't get as much grease into a single-row-width "sealed" ball bearing, as goes into the double-row-width "CARTRIDGE" BALL BEARING of equal bore and outside diameter. Look at the section drawings herewith, and you'll see why.

In the single-row-width shielded or "sealed" bearing, see that very small grease space inside the sealing plates. Note further that there is no space available for a highly-efficient, truly grease-tight seal.

Now, in contrast, see that big grease reservoir between the seals, in the "CARTRIDGE" BEARING section—providing at least DOUBLE THE GREASE CAPACITY of the shielded or "sealed" bearing, and greatly extending the greasing intervals. Note, too, how the wide, inwardly-extending seal flanges, and the oil grooves on the inner ring, provide AN IDEAL SEAL THAT PREVENTS THE ESCAPE OF GREASE AND EXCLUDES DIRT, whatever the shaft angle.

Furthermore, the "CARTRIDGE" SEALS ARE REMOVABLE AND REPLACEABLE, should you wish to inspect the bearing or change the grease. And the refilling plug makes it easy to put in a new charge of grease. You can't do this, with the ordinary shielded or "sealed" bearing, which is permanently sealed.

QUALITY, too, is just as vital as QUANTITY, in the grease in your bearings. So, every "CARTRIDGE" BEARING leaves our factory, packed with NORMA-HOFFMANN "STABILITY-TESTED" GREASE, which has great resistance to oxidation as well as excellent lubricating properties.



NORMA-HOFFMANN

"CARTRIDGE" BALL BEARING

Summing up . . . all these distinctive features of the NORMA-HOFFMANN "CARTRIDGE" BALL BEARING mean prolonged bearing life, less lubrication attention and lower maintenance cost. Write for the Catalog, enumerating many additional advantages. Let our engineers work with you.

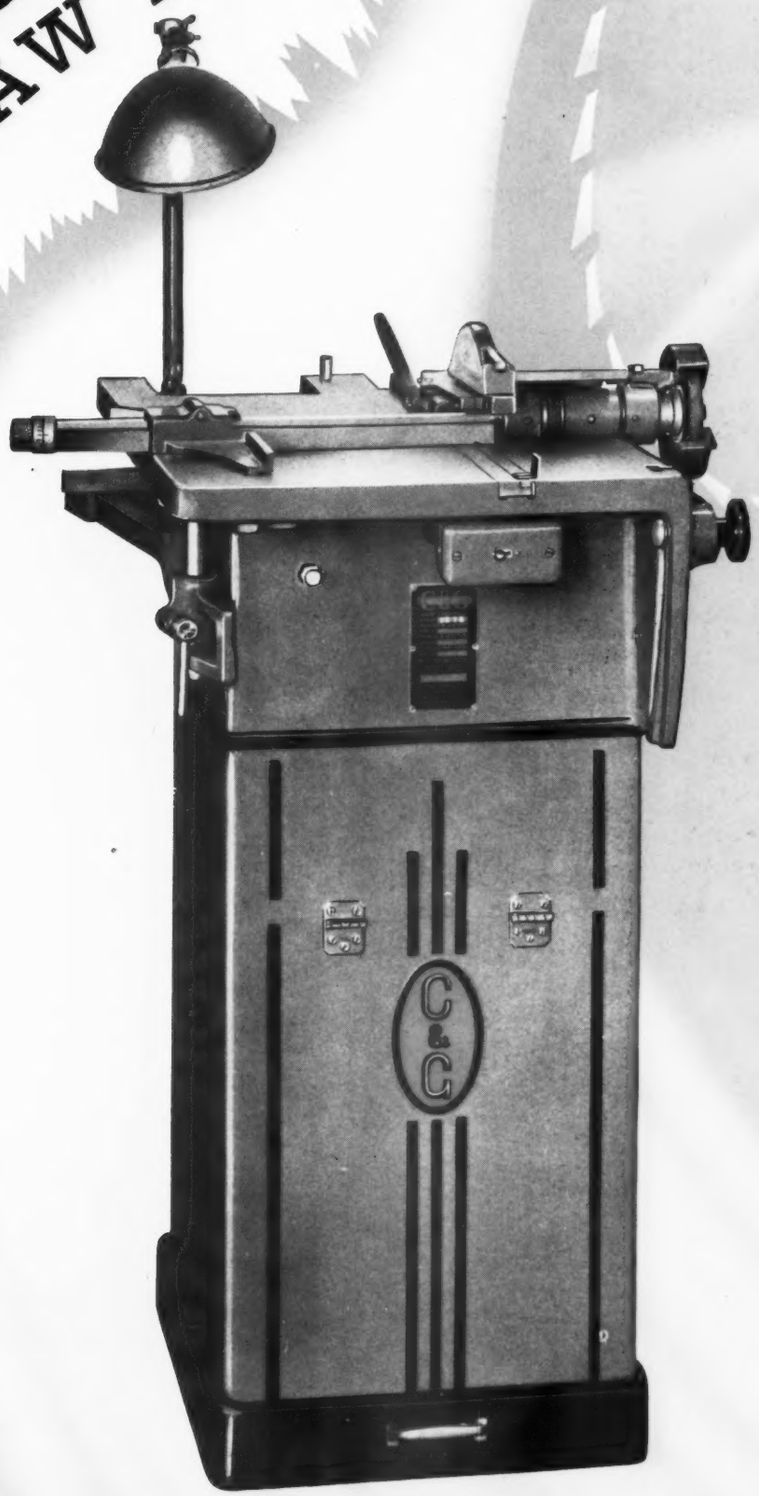
NORMA-HOFFMANN BEARINGS CORP'N, STAMFORD, CONN. • FOUNDED 1911

TO WIN THE WAR: *Work—Fight—Buy War Savings Bonds!*

219-34

C&G

No. 3-A SAW TRIMMER



THE C&G No. 3-A Saw Trimmer was developed by its users. It is a high-speed production machine designed for accurate and efficient operation. Many exclusive C&G features have resulted in its ready acceptance among leading production executives.

Compositors like the C&G No. 3-A Saw Trimmer because it is easy and safe to use. Guards cover all moving parts except the essential working exposures. In sawing, the operator moves ***only*** the gauge and the material — ***not*** the heavy table. The change from sawing and trimming position to plain sawing, or undercutting, is almost instantaneous, and does not require the tedious screw adjustment of an elevating mechanism.

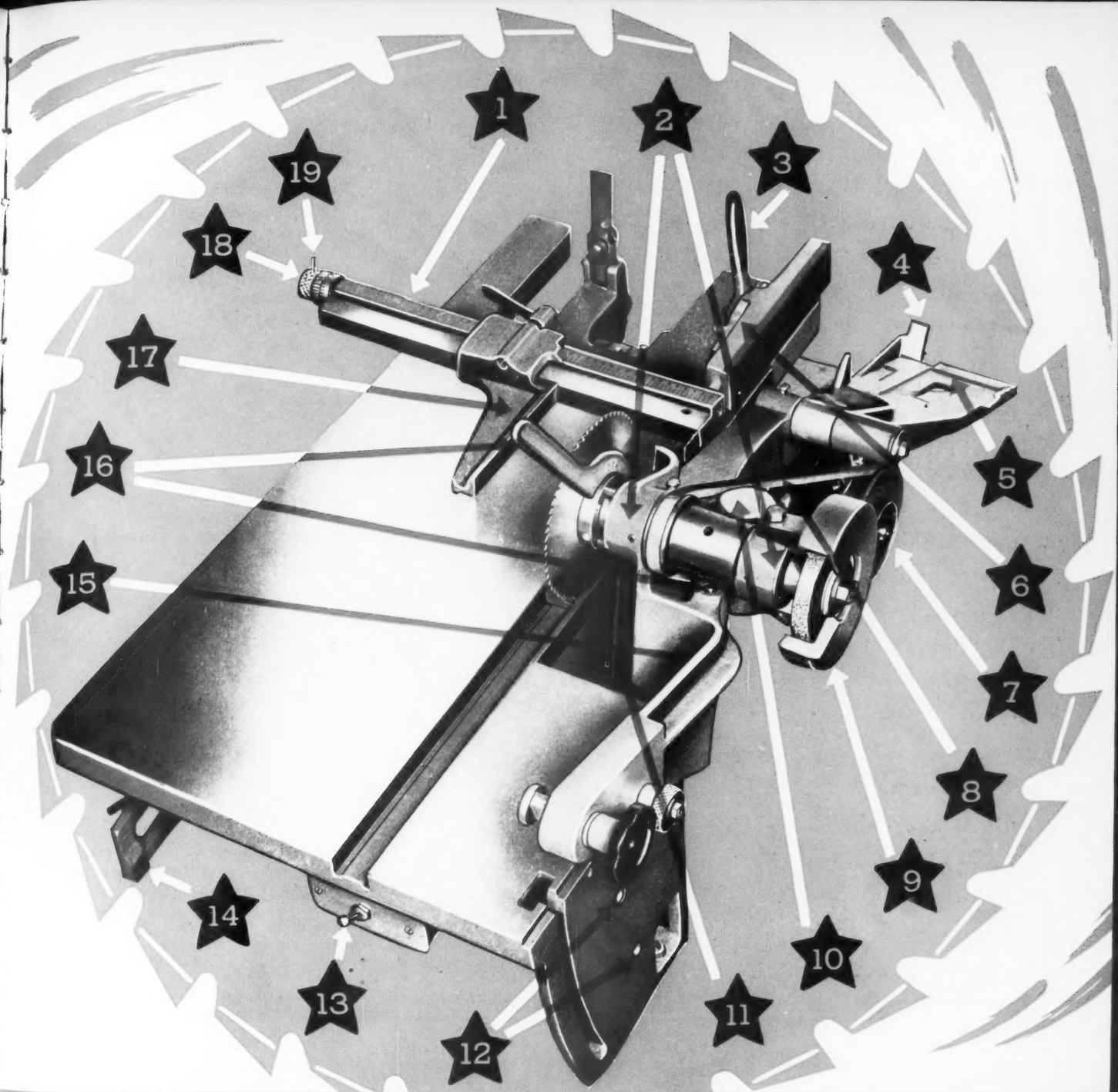
On C&G Saw Trimmers, material being sawed is placed and clamped in front of the gauge frame. This is a complete departure from the old fashioned method, and has been proved right, both in theory and practice. The C&G clamping arrangement speeds operation and promotes accuracy and safety. Slug fanning and jumping is almost impossible.

The C&G No. 3-A Saw Trimmer will solve any composing room sawing problem economically, efficiently and safely. The attachments illustrated on pages 5, 6 and 7 meet particular requirements. They deserve careful consideration.

C&G No. 3-A Saw Trimmers have replaced less efficient machines throughout the world. The evidence of customer satisfaction is in reorders. Time after time the installation of a single C&G Saw Trimmer has resulted in complete replacement of all saw trimmer equipment. One of your neighbors has a C&G No. 3-A Saw Trimmer. See it in operation. Write for list of users.

Features of the C&G No. 3-A

1. **Standard 73-pica Gauge. Gauge frame is constructed to take the largest overhanging display slugs. Antifriction device and roller construction facilitate easy movement. Pica or point measures may be set quickly and positively. Operator moves only Gauge and slugs. Table does not move.**
2. **Spindle is highest grade ball bearing construction. Ample oiling facilities are provided.**
3. **One movement of the locking lever securely locks material for sawing.**
4. **Saw Guard almost completely encloses saw. Guard is provided with friction adjustment to hold it at any desired position.**
5. **Sub-table automatically positions itself when saw is lowered for cutting through plates or undercutting.**
6. **Vise is quick acting and positive. Regular Vise Jaw Bar clamps 7½ inches (42-pica slug lengthwise). Extension Vise Jaw Bar is available for clamping plate matter up to 16 inches. Short measure clamping down to 8 points.**
7. **Motor is 1/3 H.P., long hour duty, insuring ample power for any sawing.**
8. **V-Belt Drive insures maintained pull and power during sawing operations.**
9. **Emery Wheel Guard gives utmost protection against accidental contact while sawing or mitering.**
10. **Lubricating device in the saw arm feeds oil through felt wick to the side of the saw blade, preventing metal from adhering to saw teeth.**



SAW TRIMMER

11 Flying chips are eliminated when cutting slugs or strip materials by the construction of saw arm which guides the chips into large wheeled waste receptacle housed within the base.

12 Two steel bushed holes, taking an index pin, provide definite positions for cutting and trimming slugs or sawing cuts. Any position for undercutting may be obtained quickly by movement of the balanced lever. Position is set by a turn of hand nut.

13 Switch is handy to operator. Wiring is enclosed in conduit. Convenient outlet boxes are provided for easy installation. Wiring passes inspection anywhere.

14 Extension Gauge swings under the table when not in use or it may be left at gauging position. It is always convenient to the operator.

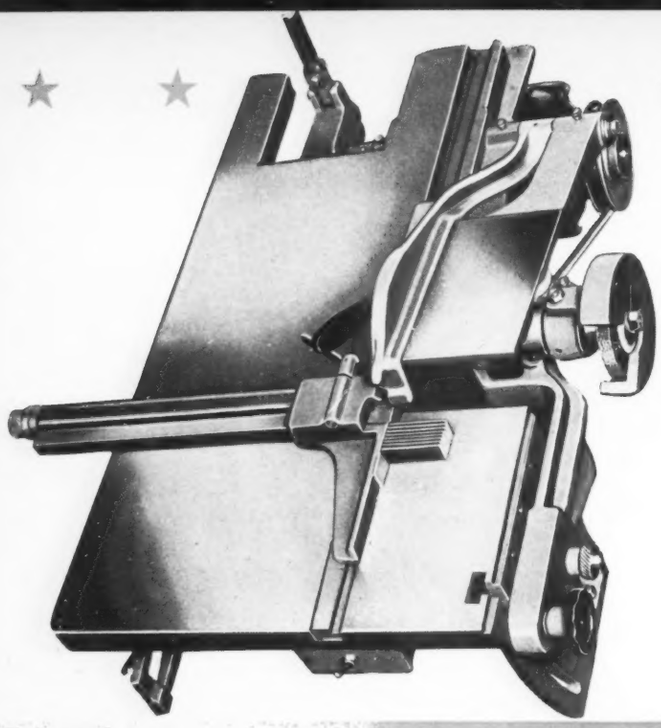
15 Ball Bearing Spindle Bracket, Motor Bracket, and Clamp Arm are all one casting. This sturdy construction insures permanent alignment.

16 Spindle Lock and Spanner Wrench facilitate removal of saw blade assembly from spindle. Saw blade is raised to completely clear table.

17 Pica End Gauge is instantly adjustable to picas. Movement is easy. Mechanism is sturdy.

18 Fractional point adjustments are easily obtained with micrometer dial. One full turn of dial moves end gauge one pica.

19 Six-point indicator provides quick and accurate setting for half pica measures.



C&G Positive Work Holder

Positive work holder permits sawing of measures as short as 8 points in length. Slugs as small as 9-point body can be clamped for lengthwise trimming.

Type mortises for proper fitting of display type may be made without risk to the operator. The material clamp operates logically. The pull of the saw tends to hold the slugs compactly, rather than fan them, or cause them to buckle. The positive work holder of the C&G No. 3-A Saw Trimmer provides the ultimate in safety factors and convenience. Elimination of clamping hazards results in increased production.

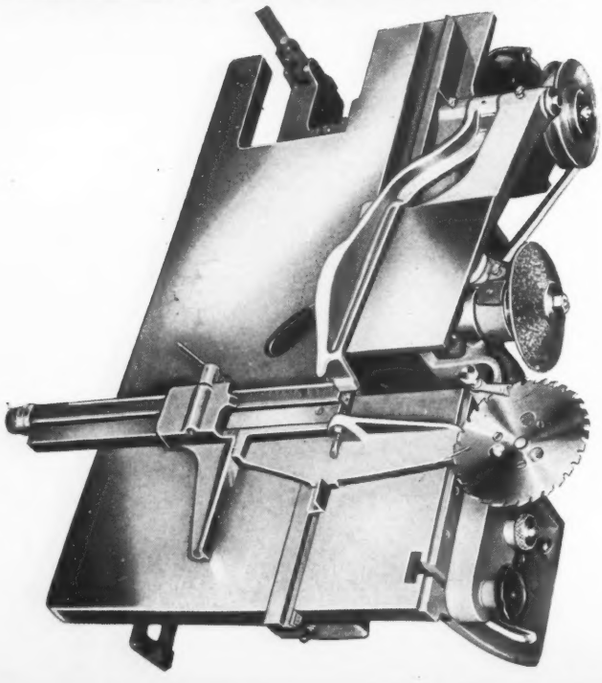
C&G Universal Saw Blades

(Patented)

C&G Universal Blades are made from high speed tool steel under C&G patent. They are not to be confused with ordinary hollow ground brass blades.

Fewer sharpenings are required because C&G Universal Blades stay sharp 3 to 5 times longer than carbon steel, swaged blades, and patented design maintains permanent side clearance without swaging.

C&G Universal Blades saw all materials including linotype, stereotype, brass, copper, zinc and wood. They save valuable time lost in changing blades, or walking to saws designated for sawing special kinds of material.



Universal Saw Blade Grinder

The Universal Saw Blade Grinding Attachment is an exclusive C&G feature used with C&G Universal Blades. It eliminates the trouble and expense of sending blades out for sharpening, and will pay for itself many times over.

The Universal Saw Blade Grinder will sharpen a saw on the machine in about three minutes. No special skill is required. A device holds the saw to position for grinding on a grinder designed for the purpose. The angle of grinding is mechanically set. The position of cutting is in direct relation to the original teeth of the saw. There is no guesswork.

The Universal Saw Grinding Attachment may be placed on outstanding C&G machines.

Right and Left Hand Miter Vise

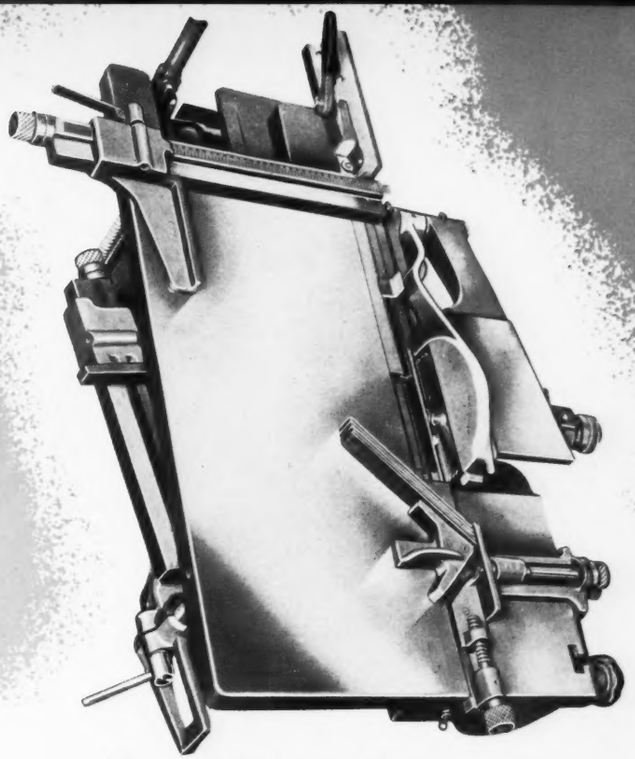
The Right and Left Hand Miter Vise is a vast improvement over all previous mitering attachments.

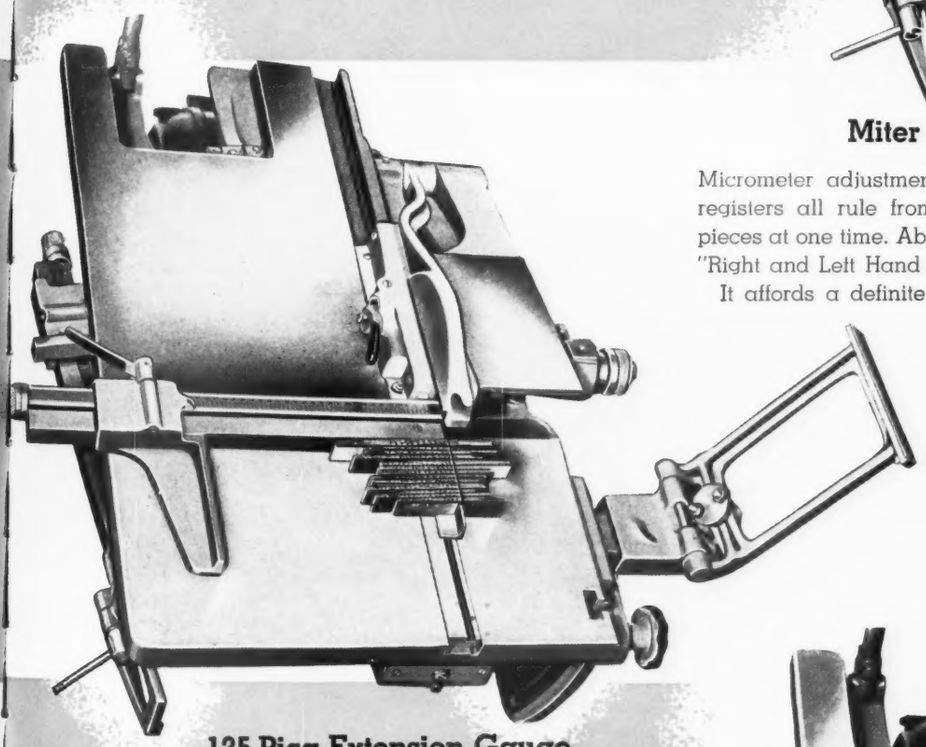
All miters are completed face up, eliminating the risk of damaging rule faces. Rule material from 1 point to 72 points thick can be handled, or several pieces of one point size to equal 72 points. Various lengths can be mitered simultaneously.

The Miter and Lineup Gauge or Standard Miter Gauge provides micrometer adjustment for gauging miters to thickness of rule from 1 point to 72 points.

The Right and Left Hand Miter Vise operates in the gauge bar channel without removing gauge frame from the saw, and does not require screws for attachment. Operation is fast and simple.

Illustration shows Miter Vise in use with Standard Miter Gauge, which is furnished with Standard Equipment. When Deluxe Equipment is ordered, Miter and Lineup Gauge is furnished instead of Standard Miter Gauge.





Miter and Lineup Gauge

Micrometer adjustment is provided for gauging all miters. It registers all rule from 1 point to 72 points, mitering several pieces at one time. Abutment face rests on table. (See illustration "Right and Left Hand Miter Vise," above).

It affords a definite straight edge for squaring plate matter. (See illustration "See-Through Guard," page 6).

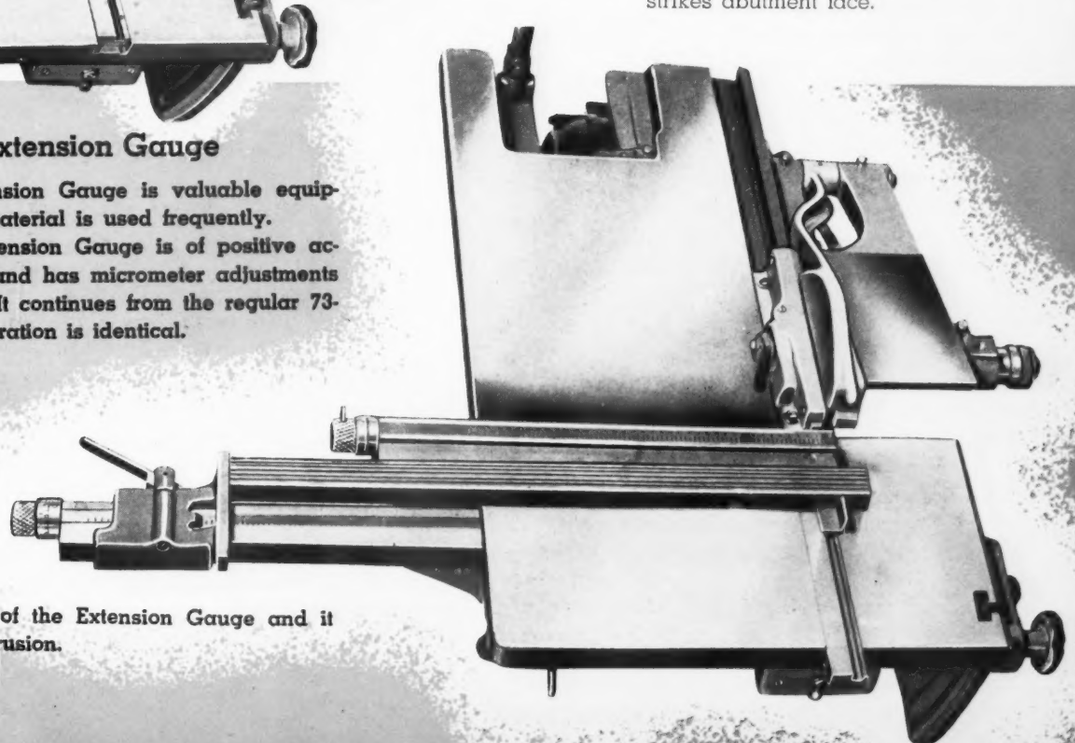
Lining up quadded slugs for simultaneous sawing. (See illustration opposite). Display slugs can be registered for separating single words or characters. For aligning slugs, Gauge is raised to permit quadded portion of slugs to slide under gauge until type shoulder strikes abutment face.

135-Pica Extension Gauge

The C&G 135-Pica Extension Gauge is valuable equipment where long strip material is used frequently.

The C&G 135-Pica Extension Gauge is of positive accuracy. It sets to picas and has micrometer adjustments to a fraction of a point. It continues from the regular 73-Pica Gauge, and the operation is identical.

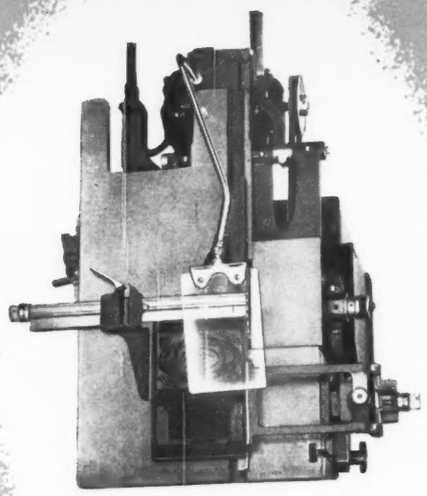
Unique arrangement provides for 135-Pica Extension Gauge to be a permanent part of the machine, yet allows for it to be out of the way when not in use. Operator never moves the extra weight of the Extension Gauge and it is not a cumbersome protrusion.



See-Through Guard

The See-Through Saw Guard is sold as an extra and is recommended for plants doing a substantial amount of plate work. For normal slug sawing the regular saw guard affords the operator complete protection from the moving saw. When sawing plates with the regular guard out of position the See-Through Guard protects the operator.

The See-Through Guard is easy to attach, can be pushed to one side when regular guard is in place, and has ample adjustment for positioning to proper angle. It is sturdily constructed and the glass is latest shatterproof type.



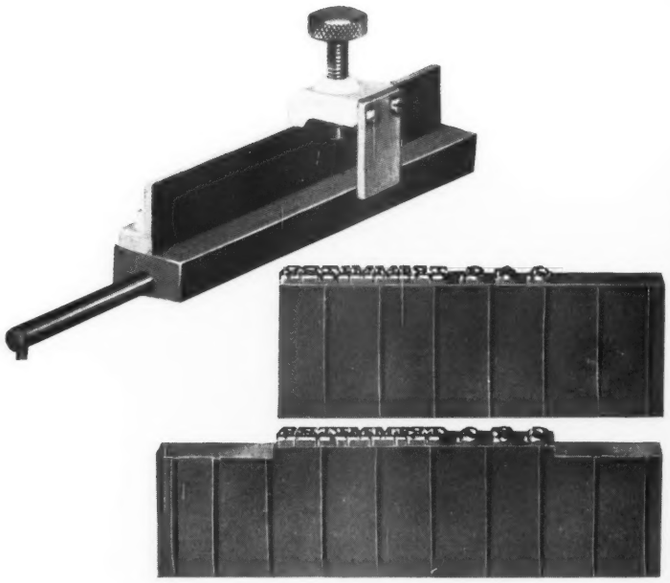
Low Slug Attachment

When short lines are cast on long slugs, there is a tendency for the quad end to print unless the shoulder is cut down.

The C&G Low Slug Attachment will position seven 10-point slugs at one time, whatever the indention length, and hold them for sawing. It is faster, safer, and more accurate than sawing single slugs, and the chance of cutting into the type matter is eliminated.

The illustration shows the Low Slug Attachment and a slug before and after sawing. The device fits the regular gauge bar channel. The operation is simple and easy.

The Low Slug Attachment is a time saver and should be available to every saw user. It fits outstanding C&G machines.

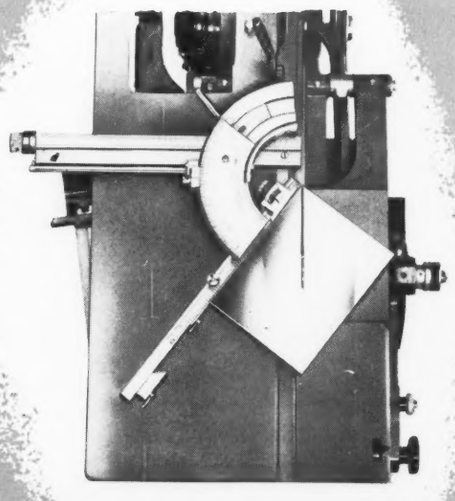


Improved C&G Angle Gauge

The improved C&G Angle Gauge facilitates the economical sawing of material for setting blocks of type matter at various angles, and for cutting rules and decorative blocks. (See page 7.)

Protractor markings on the Angle Gauge are graduated to cut angles from 2 to 90 degrees with positions indicated for cutting three, four, five, six and eight sided figures. Angles from five picas to 13 inches in length can be cut on strip material of any length up to 72 points thick. For cutting wood blocks or plates the Angle Gauge may be positioned at any point on the Gauge Bar with a definite stop provided for extreme right position. Angles may be predetermined on copy or plates with any flat protractor.

The illustration shows the Angle Gauge in position for cutting. It may be placed on or taken off the machine very quickly. It is held in position with a friction clamp. No screws are necessary.



Specifications

Size of Table.....30" x 18"
Height from floor.....37½"
Net weight.....387 lbs.
Shipping weight, domestic.....475 lbs.

Deluxe Equipment

73-Pica Gauge (adjustable to points) and Workholder . . . 135-Pica Extension Gauge (adjustable to points) . . . Miter and Lineup Gauge . . . Right and Left Hand Miter Vise . . . Saw Grinder with Dished Emery Wheel . . . Trimmer Grinder . . . Flat Emery Wheel and Guard . . . Universal Saw Blade Assembly with Head and Trimmers . . . No. 20 Waste Receptacle . . . Adjustable Lighting Fixture . . . screw driver . . . two wrenches . . . 1/3 H. P. Motor with Pulley . . . Belt and Cord for either 110 or 220 volt, A. C. or D. C. current.

Standard Equipment

73-Pica Gauge and Workholder . . . Emery Wheel and Guard . . . Standard Miter Gauge . . . Right and Left Hand Miter Vise . . . Standard 6" Saw Blade Assembly with Head and Trimmers . . . extra Standard Saw Blade (64 swaged teeth) . . . Adjustable Lighting Fixture . . . screw driver . . . two wrenches . . . 1/3 H. P. Motor with Pulley . . . Belt and Cord for either 110 or 220 volt, A. C. or D. C. current.

Ordering Instructions

The time-saving attachments described on the preceding pages should have careful consideration when ordering the machine.

In some instances they will greatly increase the capacity, with a consequent saving in time.

The Deluxe Equipment listed in the next column gives you maximum production. The Standard Equipment is essential, and will meet the requirements of many plants.

When ordering state the equipment that will serve you best, for you are investing in the most efficient sawing equipment that money will buy.

Be sure to list all items carefully and state voltage and kind of current used.

Our Guarantee

Every C&G product is performance-guaranteed, and you can place your order with an understanding that you have the privilege to return equipment within ten days should you find it in any way misrepresented by us, and any money paid on same will be refunded.

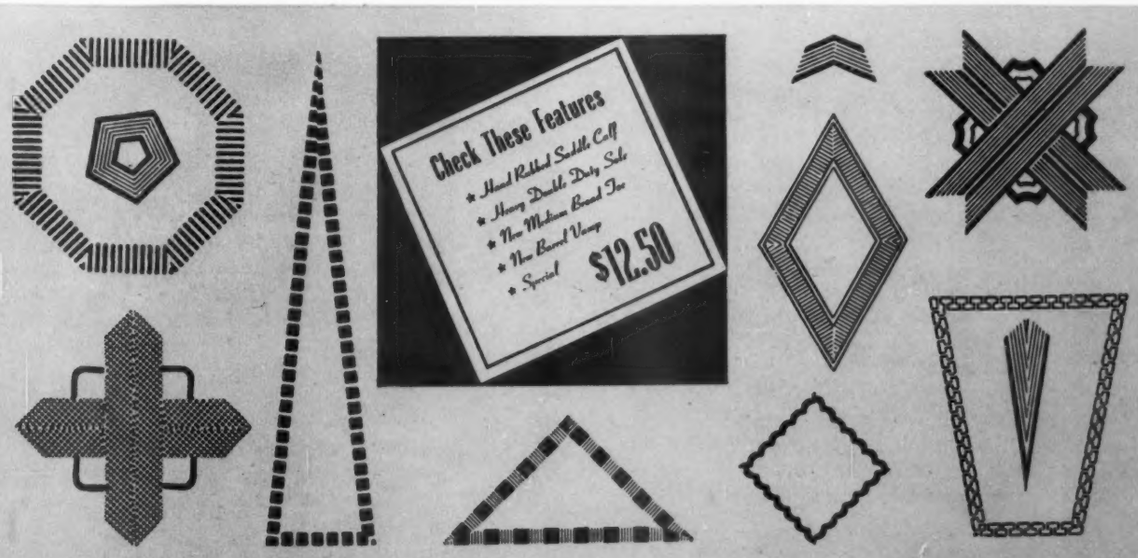
Decorative Units Produced with the C & G Angle Gauge

The C&G Angle Gauge is practical equipment for cutting unusual angles. It is easy to use, as angles may be predetermined by the use of a protractor.

Protractor markings on dial of Angle Gauge correspond with markings on protractor. Simply find the angle and set the gauge. (See page 6.)

Hundreds of decorative designs may be cut from strip material. The sample units are illustrative of the wide range of rule combinations that may be made with the C&G Angle Gauge.

The C&G Angle Gauge is especially valuable in newspaper and typographic composing rooms for sawing angle wedges to block out angle boxes and type lines.



Other C&G COMPOSING ROOM EQUIPMENT

C&G No. 2 Saw Trimmer

For accuracy and speedy sawing, trimming and mitering, the C&G No. 2 Saw Trimmer has proved its efficiency in many composing rooms. Easy sliding gauge, positive material vise, and adjustable point gauge, are important features, in addition to safety of operator at all times. It accommodates all regular sawing and trimming within its range. The table top is readily adjustable to any position for undercutting and outside mortising. Flexibility increased with special attachments.

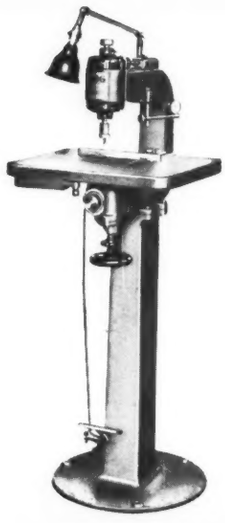
C&G Sawliner

The Sawliner has a wide range with its large table and 72-pica Gauge. It is priced so that every shop can now afford a saw and to permit the purchase of several as auxiliary saws in the larger commercial plants and for use in ad alleys in the larger newspaper offices.

Engraving plants large and small can use the Sawliner to advantage. Special zinc blade can be furnished. The Sawliner can be purchased as a bench machine or cabinet model, also portable with solid rubber wheels and caster. Illustration shows cabinet model.

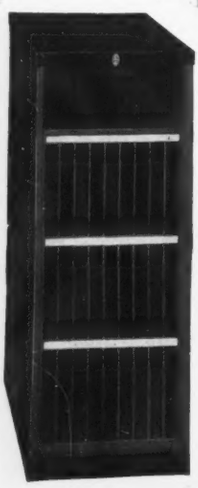
C&G Router, Jigsaw and Type High Machine

The C&G Router, Jigsaw and Type High Machine can be used by two operators at the same time. It eliminates the need for sending plates out for mortising, patching, or routing, and solves the problem of changing key numbers. It also planes cuts to exact type-height, routs and drills, and makes inside or outside mortises. It accurately cuts unusual shapes, circles and ovals from flat zinc, electrotypes, or tint blocks. It makes tedious operations easy, and saves its cost in time saved.



C&G Router and Type High Machine

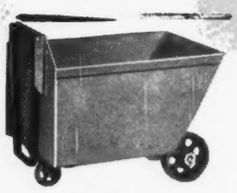
The C&G Router and Type High Machine planes cuts to accurate printing height, routes and drills. It is useful in making special tint blocks, circles, ovals, and unusual shapes, to the extent of the artistic ability of the operator. It is easy to operate, and well constructed. All parts are of the finest material, assembled for the best in performance, with minimum operating cost. The cost of the C&G Router and Type High Machine makes its installation a good investment even in small plants.



C&G Strip Material Cabinet

Every printer can use the C&G Strip Material Cabinet to advantage, and it is ideal along side the saw trimmer. It speeds production by keeping strip material where it belongs. It is built of heavy sheet steel, and is 34″ high, 24½″ long and 13″ wide. It holds over 2000 pounds of metal and can be used in any printing plant. The top makes a convenient work bench. The opening at the top can be used for tools, or additional strip and base material.

No. 20



No. 21

C&G Waste Receptacles

The C&G No. 20 Waste Receptacle is made of heavy sheet steel, and has a capacity of 1467 cubic inches. It is 16″ high, 16″ long and 11″ wide. The handle swivels to a height of 26″. The C&G No. 21 Waste Receptacle is made of the same material as the No. 20. The capacity is 2000 cubic inches, and it is 14″ high, 19″ long and 13½″ wide. Back wall from which handle projects is 16″ high, and the handle swivels to a height of 26″. The No. 20 is regular equipment with the C&G No. 3-A Deluxe Saw Trimmer.

Descriptive Literature Furnished upon Request

MILWAUKEE SAW TRIMMER CORPORATION

610-612 EAST CLYBOURN STREET • • MILWAUKEE, WISCONSIN

Printed in U.S.A.

SAWS 7 INCHES OF SLUGS IN 18 SECONDS

CABINET MODEL *Rouse* BAND SAW

The New Cabinet Model No. 2 Rouse Band Saw is the ideal machine for ad, catalog or publication plants not requiring the maximum capacity of the No. 1 Rouse Band Saw.

The No. 2 Rouse Band Saw has also been redesigned and streamlined for better appearance, even greater cleanliness, and more convenient operation. It will automatically select length, and cut accurately to predetermined measures, a 7 inch take of slugs in 18 seconds.

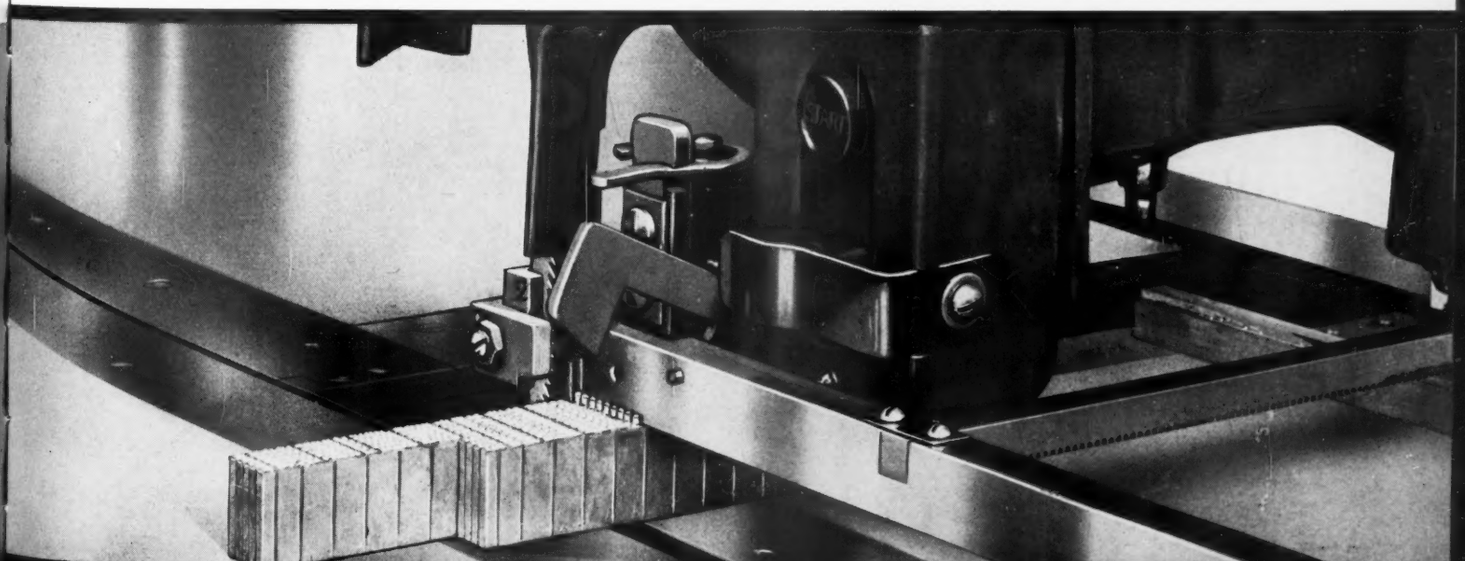
The Cabinet Model No. 2 Rouse Band Saw is identical in method of operation to the larger model. Mechanical construction is practically the same.

Sturdy, heavy construction, to precision standards, insures the maintained accuracy necessary for good make-up and maximum efficiency under hard use.

It may be installed complete at a considerable saving over the larger model.

No. 2 Standard Equipment

Three blades, tools, 1/3 H.P. three phase 220 volt 50 or 60 cycle A.C. or 230 volt D.C. motor. One 30 pica left-hand vise jaw furnished with each saw.



CABINET MODEL

Rouse BAND SAW

Redesigned and streamlined, the New Cabinet Model No. 1 Rouse Band Saw looks as speedy as IT IS — capable of accurately cutting a full galley of slugs to the same measure or to many different predetermined measures in 35 seconds.

The Rouse Band Saw is valuable for ad, catalog, or publication composition, or for any work where slugs of many different measures are used.

The Rouse Band Saw is easy, safe, and simple in operation. The take of slugs is placed on the table top. A single movement of the alignment bar positions them for sawing. A push button starts the machine. In a few seconds the cut is completed. (See illustration on other side.)

No measuring is necessary. No gauges are set. No changes are made for different slug lengths. Speed is the same regardless of the number of measures. Slugs feed to the saw blade mechanically. The saw stops automatically.

The lengths of slugs cut on the Rouse Band Saw are determined when setting the line, and require only the same attention as if they were going to be cut on a circular saw. A special vise jaw on the linotype automatically casts a slight projection, which has the same relative position to the end of each slug, whatever the final length may be. This projection serves as a guide in the cutting of slugs to accurate lengths. It does not in any way interfere with typesetting machine production.

Rouse Band Saw is a time saver in any composing room operating two or more machines on variable measure composition. It is essential equipment where speed is important.

No. 1 Standard Equipment

Three blades, set of tools, 1/3 H.P. three phase 220 volt 50 or 60 cycle A.C. motor, or 230 volt D.C. motor. Two 30 pica Rouse patented left-hand vise jaws are furnished with each saw.

Your Complete Casting Room from HAMMOND
HAMMOND EASYKASTER 8
HAMMOND MACHINERY BUILDERS INC
KALAMAZOO, MICHIGAN, U.S.A. SERIAL NO.
MODERN CASTING ROOMS BY HAMMOND

HAMMOND . . .
for Faster and Better Casting

THE finer design, construction and ideas embodied in the Hammond EasyKaster "8" have brought flat casting to a new level of efficiency. The exclusive features of the EasyKaster "8" offer easier, better and faster casting. Users unanimously praise the Hammond EasyKaster "8" for the vast improvement it has made in their stereotyping.

Model EK8-P EasyKaster "8" is the combination of an 800 lb. capacity melting pot with the finest automatic flat caster made. This modern combination provides the plant now without adequate melting facilities, with a continuous supply of hot metal and faster, more accurate casting. The melting pot is insulated and designed for both efficient and rapid heating. Heating up time with full pot is 45 minutes. Metal is drawn from the bottom of the pot, free from dross, through the valve control which provides sensitive and safe pouring. Valve and spout are heated by an individual burner with shut-off. For easy temperature control, the melting pot is equipped with three burners with shut-off valves. A Partlow Gas Control which maintains any desired temperature can be furnished and is highly recommended.

Model EK8 EasyKaster "8" (without melting pot) is the fastest and most accurate automatic-locking flat caster made. It is the finest obtainable for the plant now equipped with large melting furnace and will greatly improve flat casting in any such plant. Furnished with four casters, the front two swiveling and with caster locks to prevent movement of the machine during operation.

SPECIFICATIONS

	Model EK8	Model EK8-P
Casting Size (allowing for casting bars)	20" x 27"	20" x 27"
Rolling Bed Size	22" x 35"	22" x 35"
Vertical Bed Size	22" x 28"	22" x 28"
Rolling Bed Height (loading position)	25"	25"
Pouring Height	41½"	.....
Height of Melting Pot from Floor	.....	55"
Floor Space	37" x 58"	37" x 70"
Average Melting Time for 800 lbs. Metal	.....	45 mins.
Net Weight	1200 lbs.	1400 lbs.
Shipping Weight	1300 lbs.	1600 lbs.

The Hammond EasyKaster "8" has the outstanding feature of being the only flat caster made with uniform clamping pressure distribution. This clamping method is as great an improvement in casting box lock-ups as the adoption of hydraulic brakes on automobiles and represents the same idea. Either locking handle locks all four clamps with a single motion. The casting beds are locked at four points which are located "in" from the sides of the beds to approximate the average width cast. Each of the four steel clamps exert "equal pull" which is obtained by four precise eccentrics working against four individual "Floating Mechanisms." The result is scientifically balanced and distributed locking pressures and users have proved that this "Floating Lock-Up" produces more accurate casts.

Without any mechanical changes the Hammond EasyKaster "8" automatically adjusts itself for either type-high or shell casting bars. For base-high, four adjusters are slid from "out" to "in" positions in as many seconds. Thus awkward and time wasting mechanical changes are entirely eliminated.

The bed on the EasyKaster "8" has a better balance and rolls with surprising ease. It is mounted on roller bearings and rolls on machined rails. These rails are fully covered, thus eliminating bumping and jerking of the rolling bed due to metal splashing on the rails. The bed size — 20" x 27" — provides a larger casting capacity. Both beds have heavier ribbing and are made of nickel semi-steel.

STANDARD EQUIPMENT

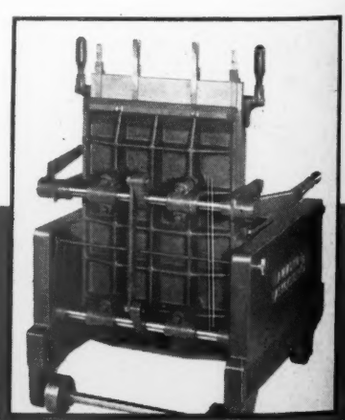
MODEL EK8-P: Complete with one set of standard thickness shell (.152" or .156") or base-high (.766") or type-high (.918") casting bars. Each set consists of one "U" casting bar hinged in the machine and two adjustable side casting bars for any width cast. Melting pot includes three burners and spout burner with individual shut-off valves. Also backing sheet clamps.

MODEL EK8: Complete with same casting bars as EK8-P. Also includes four casters (two front casters swivel), rear caster locks, backing sheet clamps and metal housing covering entire locking mechanism on vertical bed.

SPECIAL EQUIPMENT: Rolling bed preheater and special thickness casting bars for either model. Stationary feet in place of four casters on EK8. Armored thermometer and Partlow Gas Control on EK8-P.

Fast pouring with the sensitive valve pouring control.

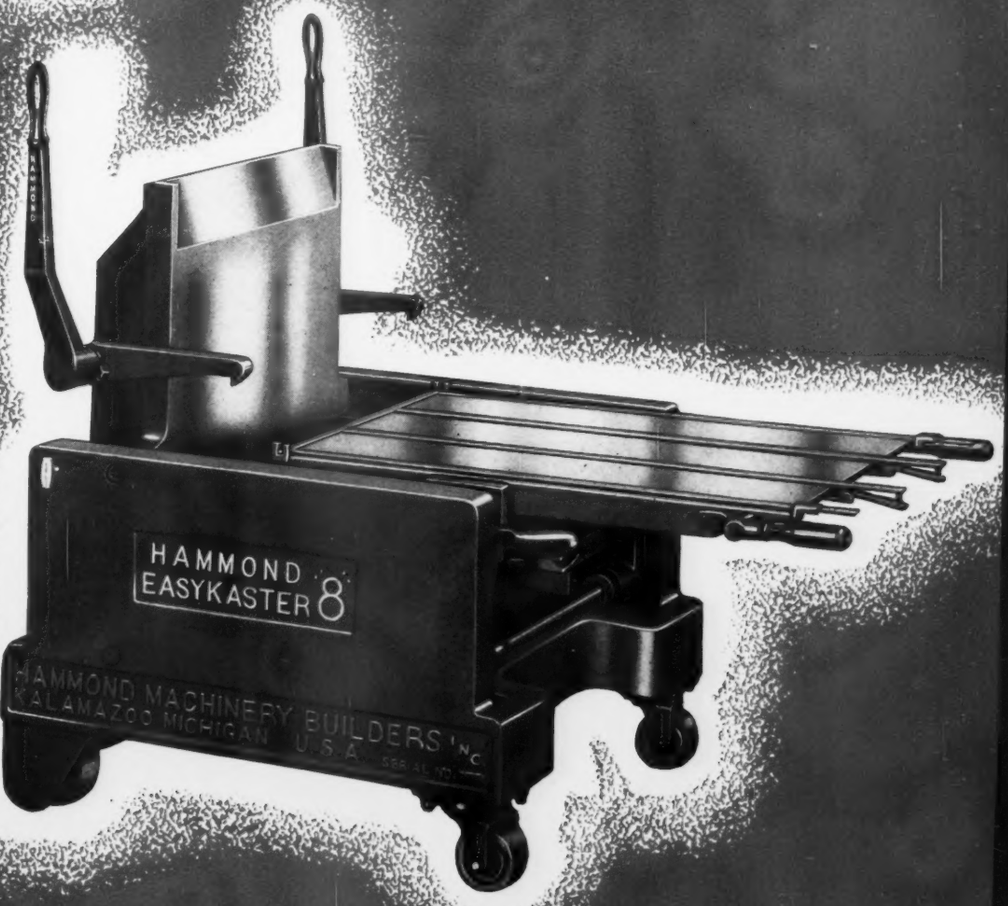
Bed rolls easily to clamping and pouring position.



Heavy ribbing . . . locking points "in" . . . plus equal pull on each clamp — means accuracy.

HAMMOND . . . Easykaster 8

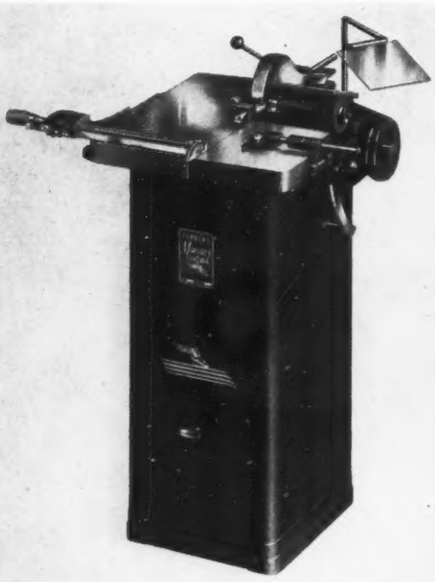
MODEL EK8-P EASYKASTER "8"
with 800 lb. capacity melting pot



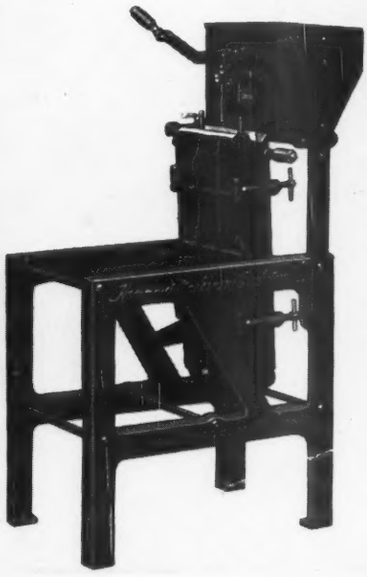
MODEL EK8 EASYKASTER "8"
without melting pot

HAMMOND Precision EQUIPMENT

Hammond fills every sawing, routing and casting need with the widest and finest line available. The popularity of Hammond products is evidenced by the 8000 Hammond users and Hammond quality is well known. All Hammond equipment is covered with a five-year guarantee against defects in materials and workmanship and carries the electric equipment manufacturers' guarantee.



MERCURY TRIMOSAW
floor and bench models



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EASYKAST
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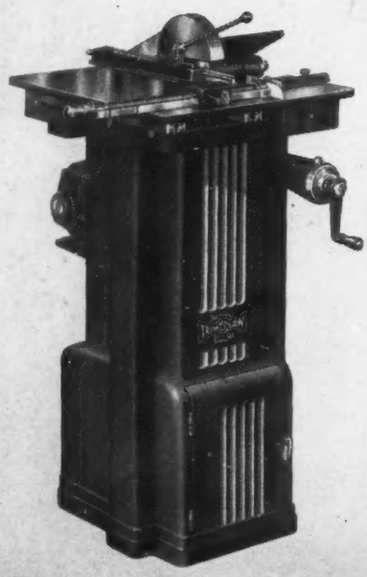
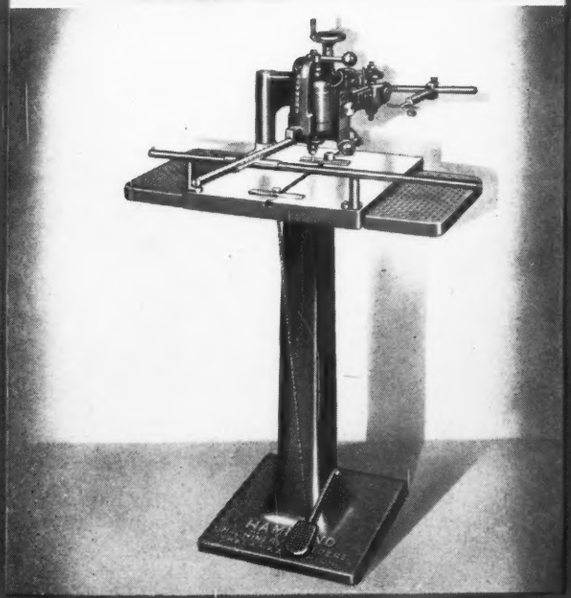


GLIDER TRIMOSAW
floor and bench models



RADIAL
ROUTE
with Straigh
Feature

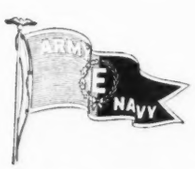
F-29A 10M 1143
Printed in U. S. A.

NEWSPAPERS ARE DOING IT!

Investigating and adopting "WILKES METHODS" for eliminating waste, hidden costs and mechanical problems in connection with type metal fabrication costs.

Progressive publishers and production managers are planning now to improve the quality of their printing. Type metal is an important factor in these plans for improvement.

Lower upkeep costs and modernized newspaper type metal formulations are now available. Literature and factual information available to executives making requests on their letterhead.



FOR EXCELLENCE IN
PRODUCTION OF WAR MATERIALS

The Finest Type Metal and Service That Money Can Buy!

WILKES TYPE METAL

A Product of THE GLIDDEN CO.
METALS REFINING CO. Division, HAMMOND, IND.

FRONT LINE OF FREEDOM

JUST a Newsstand? No.

It is a battleground.

In this tiny territory rival publications fight for the attention of the public. From left to right you can find all shades of political and social opinion, *freely* expressed. And because of this a newsstand is more than just a convenience in the life of an American town.

It is a front line.

There is another battle going on around a newsstand, more far-reaching than the competitive rivalry of paper against paper, magazine against magazine. For there are always people—yes, even here—who dislike to see opinions freely expressed...and who attempt to bring all sorts of restraining pressures on those who champion the Press's freedom.

But those who write and print and publish the free opinions of America, *they* see a threat to that freedom as a threat to *all* freedoms, and vigilantly hold back pressure-wielders from closing in on the newsstand.

For the newsstand is freedom's front line.

FUTURA DEMIBOLD

INTERTYPE

Twenty-fourth of a series of messages on the Freedom of the Press by Intertype, Brooklyn